REQUEST FOR PROPOSAL (RFP)

Bangalore Electricity Supply Company Limited

(Wholly Owned Govt. Of Karnataka Undertaking)

On behalf of

BANGALORE ELECTRICITY SUPPLY COMPANY

CHAMUNDESHWARI ELECTRICITY SUPPLY CORPORATION

GULBARGA ELECTRICITY SUPPLY COMPANY

MANGALORE ELECTRICITY SUPPLY COMPANY

HUBLI ELECTRICITY SUPPLY COMPANY

invites Electronic Bids from eligible Bidders for the Work mentioned below, under Competitive Bidding against tender enquiry no:

BESCOM/2025-26/OW/WORK_INDENT642/CALL-2 dated 31.12.2025

For the work of

Supply, install, configure, commission & maintenance of backup storage appliance with all required software license & accessories along with backup software at Data Centre for all ESCOMs of Karnataka

Issued by:
The General Manager (ICT & MIS),
BESCOM, Belaku Bhavana, Corporate office
K.R Circle, Bangalore-560001

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Disclaimer

This Request for Proposal (**RFP**) is for Supply, install, configure, commissioning and maintenance of backup storage appliance with all required software license & accessories along with backup software at Data Centre for all ESCOMs of Karnataka. Whilst the information in this RFP has been prepared in good faith, it is not and does not purport to be comprehensive or to have been independently verified. Neither BESCOM, nor any officers or employees, nor any of their advisers nor consultants accept any liability or responsibility for the accuracy, reasonableness or completeness of the information contained in the RFP, or for any errors, omissions or misstatements, negligent or otherwise, relating to the proposed project, or makes any representation or warranty, express or implied, with respect to the information contained in this RFP or on which this RFP is based or with respect to any written or oral information made or to be made available to any of the recipients or their professional advisers and, so far as permitted by law and except in the case of fraudulent misrepresentation by the party concerned, and liability therefore is hereby expressly disclaimed.

The information contained in this RFP is selective and is subject to updating, expansion, revision and amendment at the sole discretion of BESCOM. It does not, and does not purport to, contain all the information that a recipient may require for the purposes for making a decision for participation in this process. BESCOM shall not be responsible for any direct or indirect loss or damage arising out of or for use of any content of the RFP in any manner whatsoever.
This RFP includes certain statements, projections, targets and forecasts with respect to the Project. Such statements, projections, targets and forecasts reflect various assumptions made by the management, officers, employees, consultants, and experts of BESCOM, which (the assumptions and the base information on which they are made) may or may not prove to be correct. No representation or warranty is given as to the reasonableness of forecasts or the assumptions on which they may be based and nothing in this RFP is, or should be relied on as, a promise, representation or warranty.

BESCOM shall be the sole and final authority with respect to qualifying a bidder through this RFP. The decision of BESCOM in selecting the Agency who qualifies through this RFP shall be final and BESCOM reserves the right to reject any or all the bids without assigning any reason thereof. BESCOM may terminate the RFP process at any time without assigning any reason and upon such termination BESCOM shall not be responsible for any direct or indirect loss or damage arising out of such a termination.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the BESCOM or any other costs incurred in connection with or relating to its Proposal (Bid). All such costs and expenses will remain with the Bidder and the BESCOM shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Bidder in preparation or submission of the Proposal (Bid) regardless of the conduct or outcome of the selection process

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Letter of Invitation to Bidders

Tender Reference no.	Tender enquiry No: BESCOM/2025-26/OW/WORK_INDENT642/CALL-2
Name of the Organization	Bangalore Electricity Supply Company Ltd. (BESCOM)
Title of Services	Supply, install, configure, commissioning and maintenance of backup storage appliance with all required software license & accessories along with backup software at Data Centre for all ESCOMs of Karnataka.

Dear Sir/Madam,

BESCOM (hereinafter called "Purchaser") is executing RFP for Supply, install, configure, commissioning and maintenance of backup storage appliance with all required software license & accessories along with backup software at Data Centre for all ESCOMs of Karnataka. More details on the services are provided in the Terms of Reference in this RFP document.

1) The RFP includes the following documents:

Section I - Invitation for Bids
Section II - Instruction to Bidders
Section III - General Conditions of Contract
Section IV - Special Conditions of Contract
Section V - Scope of Work
Section VI - Forms

2) You are invited to submit your proposal as per the attached RFP document.

Yours sincerely,

Sd/
General Manager (ICT& MIS)
BESCOM

1. Section I: Invitation for Bids

1.1 ABOUT BESCOM

BESCOM – Bangalore Electricity Supply Company Limited is responsible for power distribution in eight districts of Karnataka. BESCOM covers an area of 41,092 sq. kms with a population of over 207 lakhs. The company has 4-operating Zones – Bangalore Metropolitan Area Zone (south), Bangalore Metropolitan Area Zone (North), Bangalore Rural Area Zone and Chitradurga Zone, 9 Circles, 28 Divisions, 119+ Sub-divisions and 465+ Section Offices or O&M offices.

Business operations are operated from Data Centre and Disaster Recovery Centre established by ESCOMs at Bengaluru and Chennai respectively.

1.2 OBJECTIVES OF THE RFP

1.2.1 The objective of this RFP is for selection of contractor for Supply, install, configure, commissioning and maintenance of backup storage appliance with all required software license & accessories along with backup software at Data Centre for all ESCOMs of Karnataka..., as per terms and conditions mentioned herein.

1.2.2 The Data Centre (DC) on premise and Disaster Recovery Centre (DRC) on cloud existing is a common centre for all 5 ESCOMs of Karnataka.

Detailed Scope of work has been specified in Sections V (Scope of work), clause 5.2 of this tender document.

1.3 KEY EVENTS AND DATES:

1	Tender Inviting Authority	GM (ICT &MIS), BESCOM
2	Date of Publication of RFP	31.12.2025
3	Pre Bid Meeting	05.01.2026, 11:30 AM at Chamber of GM-IT, BESCOM, Corporate Office, Belaku Bhavana, 5th Floor
4	Last date of Receiving Queries/ Clarification	Queries if any may be sent to gmit@bescom.co.in on or before 06.01.2026, 11:00 AM
5	Last Date of Submission of bids	14.01.2026, 4:00 PM
6	Earnest Money Deposit Payable	Rs. 3,30,390/-
7	Date, Time of Opening of Techno-Commercial Bid	16.01.2025, 11:30 AM

1.4 ELIGIBILITY CRITERIA

Pre-qualifying requirements for selection of successful Bidder are mentioned hereunder:

The following documentary evidence in respect of qualifying requirements shall be uploaded by the Bidder in the form of electronic/scanned copies in the KPP portal by the participating Bidders.

1.4.1 PRE-QUALIFICATION CRITERIA:

Amount put to Tender (exclusive of GST): Rs. 3,30,38,358/- (Rupees Three Crore Thirty Lakhs Thirty-Eight Thousand Three Hundred and Fifty-Eight only)

- **Capacity of Backup appliance required: 200 TB (Usable)**
- **Capacity of Backup software required: 150 instances/110TB Capacity/76 Sockets.**

Sl. No.	Requirement Description	Documents to be uploaded.
I.	**Technical Capabilities**	
1	The Bidder should be in existence of any of the following: (a) Companies incorporated in India under the Companies Act, 1956/2013 including any amendments thereto;	1. Certificate of Incorporation issued by Registrar of Companies of Companies Act 1956/2013 along with Memorandum of Association and Articles of Association of the company 2. Annual filings (E-forms AOC-4, MGT-7) filed by the Company to Registrar of Companies (Ministry of Corporate Affairs, Government of India) for preceding two financial years 3. Declaration from Directors of the Company stating that

		they are not disqualified to be a Director of the Company along with the list of Companies in which they are Directors as on the date of inviting tender (s)
	(b) LLP incorporated in India under the Limited Liability Partnership (LLP) Act, 2008 including any amendment thereto;	1. Certificate of incorporation issued by Registrar of Companies as per LLP Act 2008. 2. Limited Liability Partnership Agreement of LLP 3. Form 11- Annual Return filed by LLP to Registrar of Companies (Ministry of Corporate Affairs, Govt. of India)
	(c) (i) Partnership firm under Partnership Act, 1932 in India; (ii) Sole Proprietorship Concern	1. Partnership Deed, GST Registration Certificate. 2. Shops and Establishment Registration Certificate, as applicable. 1. PAN/ Registration Certificate
2	The Bidder must have valid ISO 9001:2015 or above certification.	Valid Certificate
3	The Bidder should either be the Original Equipment Manufacturer (OEM) or an OEM Authorized partner.	In case of OEM: Manufacturing License issued by competent authority. In case of Authorized dealer of OEM: 1) Letter of Manufacturers' Authorization Form (MAF) issued by the OEM. 2) Manufacturing License issued by competent authority to the OEM.

4	The Bidder or its OEM should have successfully completed as prime contractor **of one work involving backup storage appliance/ tape library/ Data Storage and backup software** of value not less than 50 % of amount put to tender i.e Rs.165.19 Lakhs issued by any Government Department (State or Central) or PSUs or any private company in any of the previous five financial years (2020-21,2021-22, 2022-23, 2023-24 and 2024-25) as on the date of bid submission. Note: updated to the FY 2025-26 in which the tenders are invited. The value of the completed works shall be given a weight of 10% per year to bring them to the price level of the FY 2025-26 in which the tenders are invited.	Scanned copy of the Detailed Work Award and satisfactory work completion certificate duly indicating the amount, issued by an officer not below the rank of Executive Engineer or equivalent officer of the concerned Government department or PSU or equivalent cadre in case of private company shall be uploaded.
5	The Bidder or its OEM should have executed work involving **backup storage appliance/Tape Library/Data storage and backup software of minimum one quantity of 80% of tendered capacity** (minimum 160 TB of backup storage appliance or Tape Library or Data Storage & 120 instances/capacity of backup software) issued by any Government Department (State or Central) or PSUs or any private company in any one year during the previous five financial years (2020-21, 2021-22, 2022-23 and 2023- 24 and 2024-25)	Scanned copy of the Detailed Work Award and satisfactory work completion certificate duly indicating the quantity and capacity, issued by an officer not below the rank of Executive Engineer or equivalent officer of the concerned Government department or PSU or equivalent cadre in case of private company shall be uploaded.
6	The Bidder must not have been blacklisted by any Government Department (State and Central Government) or PSUs or Private Company as on the last date of submission of Bid.	*Self-declaration by the Bidder in Rs. 500 Stamp paper duly notarised shall be uploaded.*
7	Any Bidder from a country which shares a land with India will be eligible to bid in	*A copy of Registration certificate issued by the Indian competent*

	this tender only if the Bidder is registered with the Competent Authority. A certificate for having read the clauses is required to be submitted/uploaded by the Bidder separately in the following format: I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India; I certify that this Bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this Bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.)	*authority. In case the same doesn't apply, Self-declaration by the bidder in Rs. 500 Stamp paper duly notarised shall be uploaded.*
8	The Bidder must not have defaulted in providing services against any of the previous purchase orders placed by BESCOM or any other utilities as on the date of bid opening.	*Self-declaration by the Bidder in Rs. 500 Stamp paper duly notarised shall be uploaded.*

II. FINANCIAL CAPABILITIES:

9	The annual financial turnover of the bidder should be two times the amount put to tender in any one financial year of previous five financial years (2019-20, 2020-21,2021-22,2022-23,2023-24) **Note:** updated to the FY25-26 in which the tenders are invited. Financial turnover of previous years shall be given a weight of 10% per year to bring them to the price level of the FY 25-26 in which the tenders are invited	Certified copies of audited Financial Statements (P&L statements, Balance Sheets) duly sealed and signed by CA providing the turn over details.

10	The Liquid Assets as on 31.12.2025 or at a later date before the submission of the bid consisting of Cash at Bank + Term Deposits + availability of fund based credit facility in any Nationalized/ scheduled Bank shall not be lesser than 25% of the amount put to tender. If the bidder has banking with more than one Bank, then the available liquid assets balance mentioned above on a particular date i.e., as on 31.12.2025 or any date before submission of bids shall be the same date for all the banks. (Same or higher amount of liquid assets shall be maintained/showcased at the time of the issuance of LOI.)	The cash at Bank, Term Deposits and the availability of fund based credit facility shall be supported by a certificate issued by any Nationalized/Scheduled Bank with whom the bidder has banking facilities In case of Fund based credit facility, the certificate issued by the Nationalized/ Scheduled Bank duly mentioning sanctioned limits, funds utilized so far and balance available as on 31.12.2025 or at a later date, before submission of the bid.

III. Qualifying Requirements:

11	Bidders who meet the above specified minimum qualifying criteria, will only be qualified, if their available tender capacity is more than the total tender value. The available tender capacity will be calculated as under: Assessed available tender capacity = (A*N*1.5 - B) Where, A = Maximum value of works executed in any one year during the last five years ((updated to FY 2025-26 price level) taking into account the completed as well as works in progress. N = Number of years prescribed for completion of the works for which tenders are invited. (5 years) B = Value, at FY-2025-26 price	*The bidder shall upload statements showing:* *1) For A: the value of works executed in any one year during the last five years, attach certificate from Chartered accountant.* *The details shall be filled as per Form 11.* *2) For B: The value of existing commitments and ongoing works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the employer in-charge, not below the rank of Executive Engineer or equivalent. The details shall be filled as per Form 11.*

	level, of existing commitments and on-going works to be completed during the next 5 years (period of completion of the works for which Tenders are invited)	

1.5 CONTRACT PERIOD

The total contract period is for 5 years from the date of commissioning of the backup storage appliance along with backup software.

BESCOM reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The BESCOM also reserves the right to increase the ordered quantity by up to 25 percent of the contracted quantity during the currency of the contract at the contracted rates. Successful bidder is bound to accept the orders accordingly.

Further, the contract may be extended for additional two years on mutual agreement provided the cost do not exceed 10% over the DWA cost.

1.6 Bid Submission

Instructions regarding KPP portal:

1. The bid is to be quoted online through e-auction in the Government of Karnataka "Karnataka Public Procurement (KPP) portal" on **https://kppp.karnataka.gov.in only.**
2. Bidders, who have not registered in the KPP portal, may do so by registering through the above website. **A non-refundable Tender processing fee** as determined by the above said procurement platform shall be payable electronically by the Bidders at the time of submitting Bids.
3. The Bidders can access bid documents on the web site and participate in the e- Auction within the stipulated time and date as per auction notice details through above portal only.
4. Bidders shall attach scanned copies of all the certificates pertaining to the qualifying requirements as mentioned in the eligibility criteria and any other certificates as required in the tender, which are mandatory.
5. The Bidders shall furnish the original certificates for verification whenever required to the BESCOM authorities, failing which the Bidder will be disqualified.
6. Conditional bids, incomplete bids, bids without EMD, bids not properly uploaded and bids submitted late will be rejected.

7. Date and time-stamp of the portal shall be final in deciding the time and date of submission of bid through e-Auction. Decision of the Company in this regard is final and must be accepted by all the Bidders.
8. The Bidders shall quote in Indian Rupees only.
9. Bids shall be submitted through above portal only.
10. The Bidder shall upload documents to satisfy qualifying requirements, EMD, Declaration form, proof of address wherever necessary, pollution controls board authorization /certificate whenever required and other statutory requirements.
11. The EMD furnished by the Bidders will be forfeited in case the Bidder withdraws the offer during the validity or violates any clause stipulated in the bid.
12. The prospective Bidders shall upload all the relevant documents along with the bid.
13. **The validity of the bid shall be 180 days from the last date of bid submission.**
14. Corrigendum / **Modification / Corrections, if any will be published in the portal website only, for any clarification on e-procurement, request for e-procurement training, Bidders can contact HELP DESK at +91-8046010000**

Note: The above Notification is subject to changes from time to time. Prospective Bidders are requested to contact the authorized person / office indicated in the Notification for the authentic prevailing version. The Management does not take any responsibility for any consequences arising out of any acts or forbearance on the part of the third parties on the basis of the above Notification.

Procedures

1. The Bids along with prescribed documents as per annexures shall be submitted through KPP portal and the Bidders are requested to familiarize themselves with the procedure of E-Procurement thoroughly before submission of Bids.
2. Mere issue/downloading of Bid Document does not qualify any Bidding firm for appointment. The Bidders who does not comply with the eligibility Criteria mentioned in the Tender Notification/Bid document will be rejected.
3. The submission of Bidders implies that they have read and understood the contents of Tender Notification and the Bid document.
4. The Authority reserves the right to accept/reject all or any of the Bids without assigning any reasons.
5. Conditional quotes/ Bids are not acceptable.

6. The declaration given by the Bidders is found false on verification, the offer of such Bidder will be discarded and not considered for evaluation and legal action will be initiated against such Bidder who has submitted the false declaration.

Sd/-

General Manager

ICT & MIS, Corporate Office

BESCOM

2. Section II: Instructions to Bidders

2.1 INSTRUCTION

2.1.1 BESCOM on behalf of Bangalore Electricity Supply Company Limited and other ESCOMs, invites tenders vide Enquiry No: BESCOM/2025-26/OW/WORK_INDENT642/CALL-2 in two parts (Technical Bid and Price Bid) through KPP portal **https://kppp.karnataka.gov.in** for Supply, installation and commissioning of backup storage appliance with all required software license & accessories along with backup software at Data Centre (DC) for all ESCOMs of Karnataka.

2.2 COST OF BIDDING

2.2.1 The Bidder shall bear all costs and expenses associated with preparation and submission of its bid including post-bid discussions, Technical bid and other presentations etc., and BESCOM will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

2.3 UNDERSTANDING OF BID DOCUMENTS

2.3.1 A prospective Bidder is expected to examine all instructions, forms, terms and specifications in the Bid documents and fully inform himself so as to all the conditions and matters which may in any way affect the scope of work or the cost thereof. Failure to furnish all information required by the Bid document or submission of a Bid not substantially responsive to the Bid document in every respect will be at the Bidder's risk and may result in the rejection of its bid.

2.4 LANGUAGE OF BID

2.4.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern.

2.5 CURRENCIES OF BID

2.5.1 Bidders may express their bid price in Indian Rupees only. Price Bid in any currency other than INR will be treated as non-responsive and hence will

be rejected.

2.6 BID VALIDITY

2.6.1 Bids submitted by Bidders shall remain valid for acceptance for One Hundred and Eighty (180) calendar days from the last date of Bid submission .

A Bid valid for a shorter period may be rejected by the Purchaser as being non-responsive.

2.6.2 In exceptional circumstances, the Purchaser may solicit the Tenderer's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The earnest money deposit provided under Clause 2.7 shall also be suitably extended. A Tenderer may refuse the request without forfeiting its earnest money deposit. A Tenderer granting the request will not be required nor permitted to modify its tender.

2.7 EARNEST MONEY DEPOSIT (BID GUARANTEE)

2.7.1 The bidders shall pay 1% EMD against amount put to tender through any of the payment modes mentioned in the KPP portal for payment of EMD.

2.7.2 Permanent EMD holders are also necessary to furnish EMD. Government/Quasi Government/Public Sector Undertakings are not exempted from furnishing the Bid security.

2.7.3 EMD will be returned / refunded for the unsuccessful bidders on finalization of the order and EMD of successful bidders will be returned after furnishing the Performance Guarantee by the Successful Bidder.

2.7.4 Bids shall be accompanied by Bid Security (EMD) amount as indicated in "**Key Events and Dates"** shall be submitted through any of the four e-payment modes mentioned in the KPP Portal. The Bid Security is required to protect the owner against the risk of Bidder's conduct including withdrawing the bid after acceptance for any reason whatsoever, which would warrant the Guarantee forfeiture, pursuant to Para 2.7.5. The Bid Security shall be made payable to the Owner without any condition whatsoever.

2.7.5 Any Bid not secured in accordance with Para 2.7.1 above will be rejected summarily by the Owner as Non-Responsive.

2.7.6 The bid guarantee may be forfeited:

a) If a Bidder withdraws / modifies its bid during the period of bid validity specified by the Bidder on the Bid Form; or

b) In case of a successful Bidder fails to sign the Contract or furnish the Agreement within the prescribed date or
c) In case of a successful Bidder fails to furnish the bank guarantee.

2.7.8 E-payment modes for Tender Processing Fee & Earnest Money Deposit
The Bidders should pay the Earnest Money Deposit (EMD) & Tender Fee in the KPP portal using any of the following payment modes:
a) Credit Card
b) Direct Debit
c) National Electronic Fund Transfer (NEFT)

2.8 DEADLINE FOR SUBMISSION OF BIDS

2.8.1 Bids must be uploaded in the KPP portal on or before the date specified in "**Key Events and Dates"** section of the document or the KPP portal. BESCOM may, at its discretion, extend this deadline for the submission of bids by amending the Bidding Document, in which case all rights and obligations of Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

2.9 MODIFICATION AND WITHDRAWAL OF BIDS

2.9.1 The Bidder may modify or withdraw its bid after the bid's submission provided that written notice of the modification or withdrawal is received by Purchaser prior to the deadline prescribed for submission of bids.

2.9.2 No bid may be modified subsequent to the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the

2.9.3 Bid Form withdrawal/modification of a bid during this interval may result in the Bidder's forfeiture of its bid security.

2.9.4 In KPP Portal Contractor has the option of withdrawing the Bid by digitally signing to withdraw/cancel bid before the bid submission time /Date.

2.9.5 Earnest Money Deposit paid by the unsuccessful Bidders will be returned as soon as possible after the tender has been finalized.
Earnest Money Deposit of the successful Bidder will be refunded after successful fulfillment of the contract.
The deposit towards EMD shall not carry any interest. Permanent EMD will

not be considered.

2.10 FORMAT OF BID

a) The bids shall be uploaded in the KPP portal, on or before the last date and time of submission of bids. Bids not submitted through KPP portal and non-submission of EMD will be disqualified.

b) The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initiated by the person or persons signing the bid.

c) All the documents in support of qualifying requirements and all necessary documents shall be scanned and uploaded in the KPP portal

2.11 CONTENTS OF TENDER DOCUMENT

2.11.1 The services required, bidding procedures, contract terms, etc. are prescribed in the Tender Document. Bidders are expected to examine all instructions, terms & conditions, specifications, annexures, forms and other information in the Tender Document. Failure to furnish any or all information as required or submit a Bid not substantially responsive to the Tender Document in every respect will be at the Bidder's risk and may result in rejection of the Bid.

2.12 BIDDER TO OBTAIN HIS OWN INFORMATION

2.12.1 The Bidder shall for all purposes deemed to have independently obtained all necessary information for the purpose of preparing his Bid. The correctness of the details given in the Tender Document is for guideline information only, to help the Bidder prepare his Bid.. The cost of visiting the sites shall be borne by the Bidder. Non-familiarity with the site conditions will not be considered a reason either for extra claims or for not providing services in strict conformity with scope and special conditions of the contract.

2.13 CLARIFICATION ON TENDER DOCUMENT

2.13.1 If the prospective Bidder finds discrepancies or omissions, in specifications and document or is in doubt as to the true meaning of any part, he shall at once make a request, in writing, for an

interpretation/clarification, to Purchaser.
The Purchaser, then, will issue interpretation(s) and clarification(s) as may think fit in writing.

A prospective Bidder requiring any clarification on the RFP Document may submit queries, in writing, at the mailing address and as per schedule indicated in “Invitation for Bids/ Key events and dates”. The queries must be submitted in the following format only to be considered for clarification.

Sl. no.	Section no./ Clause no.	Page no.	Description/ Reference/ Subject	Clarification Sought

The queries not adhering to the above mentioned format would not be responded. BESCOM will respond to any request for clarification to queries on the Tender Document, received not later than the dates prescribed in Invitation for Bids/ Key events and dates. The clarifications (including the query but without identifying the source of inquiry) will be uploaded on the KPP portal. Responses will be uploaded by the Purchaser in the portal to any request for such clarification of the Bidding Document.Verbal clarification and information given by Purchaser or his employee(s) or his representative(s) shall not in any way be binding on Purchaser.

2.14 AMENDMENT OF BIDDING DOCUMENT

2.14.1 At any time prior to the deadline for submission of the Bids, Purchaser may, for any reason, at its own initiative modify the Tender Document by issue of an addendum/corrigendum.

2.14.2 In addition, Purchaser may issue addendum/corrigendum to the Tender Document to make/reflect amendment(s) in terms & condition or Scope of Work specified in this Tender Document.

2.14.3 Any such addendum/corrigendum will be made available at the Karnataka KPP portal website. No separate other communication in this regard shall be made with any Bidder. It will be the responsibility of the Bidder to regularly visit the website to keep themselves updated on such changes.

2.14.4 No clarification obtained through verbal communication by the Bidders

from any officer, agent or employee of the Purchaser or any staff of the BESCOM IT Consultant will be deemed as addendum/corrigendum to the Tender document.

2.15 GENERAL INSTRUCTION FOR BID PREPARATION

2.15.1 The Bidders are advised to submit their Bids complete in all respect. The Bidder shall submit a comprehensive list of attached forms/declarations/certificates etc. in response to Tender Document.

2.15.2 The Scope of Work specified in this Tender Document shall be executed strictly in accordance with the conditions specified in the RFP and other conditions specified in various sections of this Tender Document. If any of the aforesaid condition is not clear to a Bidder, clarification may be sought from the Purchaser as per the provisions of clause 2.13 (Clarification on Tender Document).

2.15.3 The Bidders must accept all the conditions specified in the Tender Document to facilitate early finalization of Bids. Separate set of commercial conditions (such as Bidder's standard printed conditions) enclosed with the offer and any reference there to may prevent the Bid from being considered by the Purchaser.

2.16 PREPARATION OF BID/PROPOSAL

2.16.1 Bidder shall submit one Bid. If, Bidder submits more than one Bid such Bids shall be disqualified.

2.16.2 The Bid/Proposal as well as all related correspondence exchanged by the Bidders and the Purchaser shall be written in English language, unless specified otherwise.

2.16.3 In preparing their Bid/Proposal, Bidders are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of a Bid/Proposal.

2.16.4 The Technical Bid/Proposal shall not include any financial information. A Technical Proposal containing financial information may be declared non responsive.

2.17 FINANCIAL BID/PROPOSALS

2.17.1 The Financial Proposal shall be directly entered in the KPP portal. It shall list all costs associated with the Assignment/Job, including the various deliverables costs and taxes. The financial proposal shall not include any conditions attached to it and any such conditional financial proposal shall be rejected summarily.

Bidders are to Enter/Key-In the bid price directly in the KPP portal of GoK, in the financial bid section. This is as per the GOK Circular: □□□□□□□□ □□□□□□: □□ 165 □□□□□-12/2017 dated 21/3/2017.As per the circular only the price entered/keyed-in the portal is to be considered for bidding purpose and no document uploaded as financial bid is to be considered.

Bidders should not upload the Price bid form in the portal in technical or financial section (there is no provision for upload in financial section of portal.). If bidder uploads financial bid in the technical section such bids will be summarily disqualified.

2.17.2 The firm price should only be quoted.

2.17.3 The bidder must quote in Indian Rupees (in INR) only. Bids in currencies other than INR would not be considered and the bid will be rejected forthwith.

2.17.4 The prices offered shall be on a fixed price basis and should not be linked to the foreign exchange or any other variable. Prices shall be uploaded in Indian Rupees, exclusive of GST both in figure and words rounded to one rupee in the KPP portal. However, the applicable GST shall be submitted separately only by the successful bidder while providing the price breakup offline.

2.17.5 The prices offered should be inclusive of all the deliverables mentioned in Scope of work of section Special Conditions of Contract

2.18 RIGHT OF PURCHASER TO ACCEPT OR REJECT BIDS

2.18.1 The Purchaser reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

2.18.2 The right to accept the Bids in response to this Tender Document will rest with the Purchaser. The Purchaser further does not bind himself to accept and reserves the authority to reject any or all the Bids received without assigning any reason whatsoever.

2.19 BID OPENING

2.19.1 The e-procurement system allows the Purchaser to download and open the e-submitted bid files from bidders only after the time for opening the bids. The technical bids will be opened as per dates given in the KPP portal.

2.19.2 The price bids of all the qualified technical responsive bidders shall be opened after completion of successful Technical evaluation.

The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files shall be considered incomplete and rejected for further bid evaluation.

2.20 BID EVALUATION

2.20.1 The evaluation process of the tender, proposed to be adopted by the Purchaser is indicated under this clause.

2.20.2 **Evaluation of Techno –commercial Bid**

a) The Pre-Qualification Proposal will be evaluated and only those bidders who qualify the requirements will be considered for Technical evaluation.

b) Documents and required forms uploaded by the bidders as part of the Pre-Qualification criteria will be opened and evaluated for compliance in this stage of evaluation.

c) Only those Bidders who meets all the pre- qualification criteria stated in this RFP, shall be considered for Technical Evaluation of Bidder.
BESCOM will review the documents of the bidder. Evaluation shall be on the basis of technical specifications and documents provided by the Bidder.
Any deviation to the technical specification will be treated as disqualified.

2.20.3 **Evaluation of Financial Bid.**

a) The Financial Bids of techno-commercially qualified bidders will only be opened.

b) Only fixed price commercial bids indicating total price for the deliverables specified in this bid document will be considered.

c) Prices shall be quoted in Indian Rupees, inclusive of all statutory charges, duties and exclusive of GST etc. both in figure and words rounded to one rupee.

d) Any conditional bid would be rejected.

e) No escalation of cost is allowed during the validity of the contract period.

f) Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the lowest amount will be considered".

g) If there is no price quoted for the deliverables, the bid shall be declared as disqualified.

The Financial Bids would be evaluated based on the overall price quoted by the Bidder as in Price Bid form. The evaluation would be based on L1 criteria only. The Bidder who quotes the lowest price shall be considered as L1.

2.21 NEGOTIATIONS

It is absolutely essential for the bidders to quote the lowest price at the time of making the offer in their own interest. However, BESCOM reserves the right to negotiate price before awarding the contract.

2.22 AWARD CRITERIA

The Successful bidder will be issued Letter of Intent (LOI). On receipt of LOI, the bidder should comply with the following requirements:

1. Submit duly signed acceptance letter to LOI.
2. Submit Performance Bank Guarantee / e-PBG/ Insurance Surety Bond for 5% (Five) of Contract Value exclusive of GST.
3. Submit Contract agreement along with SLA on a Rs 500/- value non judicial stamp paper (BESCOM will issue draft contract agreement to bidder)

4. Submit Non-Disclosure agreement (NDA) (BESCOM will issue draft SLA agreement to bidder)
5. Submit Breakup of Price as per Form 6- Price Bid.
6. Submit Bank guarantee as per clause 3.5 a) if successful bidder do not opt for quarterly payouts.

Once all the above documents are submitted to BESCOM, a Detailed Work Award (DWA) will be issued by BESCOM.

2.23 RIGHT TO ACCEPT/REJECT ANY OR ALL BIDS

Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for Purchaser's action.

2.24 NO COMMITMENT TO ACCEPT LOWEST OR ANY TENDER

BESCOM shall be under no obligation to accept the lowest or any other offer received in response to this tender notice and shall be entitled to reject any or all offers including those received late or incomplete offers without assigning any reason whatsoever. BESCOM will not be obliged to meet and have discussions with any bids, any or to listen to any representations.

2.25 NOTIFICATION OF AWARD

Prior to the expiration of the period of bid validity and extended validity period, if any, Purchaser will notify the successful Bidder in writing by registered letter/email, that its bid has been accepted.

3. Section III: General Conditions of Contract (GCC)

3.1 Bid Prices

3.1.1. Unless otherwise specified in the Scope of Work, Bidders shall quote for the entire Services on a Single Responsibility/ Turnkey basis such that the total Bid price covers all the obligations of the Bidder mentioned in or to be reasonably inferred from the Tender Document in respect of providing the product/services wise.

3.1.2 Bidders are required to quote the price for the required items as per Scope of Work specified in RFP as in section 5.

3.1.3 Bidders shall give the prices in the manner and detail as asked for in the Price Bid given in price bid form failing which the Purchaser shall reserve the right to assume/extrapolate the prices for the item/services for which the price has not been quoted and the same will be binding on the Bidders. Responsibility for including all applicable taxes, duties and levies in the Bid lie with the Bidder and the Purchaser shall not be responsible for any error/omission on the part of the Bidder.

3.1.4 The taxes, duties and levies in the form of Goods and Services Tax (GST) shall be indicated by the Bidder in the Price Bid given in Form 6 of section

6 and shall be quoted as the rates in force as on seven (7) calendar days prior to the last date of Bid submission as mentioned in event sheet. The total price uploaded by the bidder should be exclusive of GST.

3.1.5 The price shall be exclusive of GST. BESCOM will not pay any other taxes, whatsoever in respect of this contract. Any increase in the tax should be absorbed by the firm during the contract and any reduction in the tax should be passed on the BESCOM

3.2 Performance Guarantee

3.2.1 The successful Bidder shall furnish the performance security in the form of bank guarantee/e-PBG by nationalised bank/scheduled commercial banks in India, payable at Bengaluru or Insurance Surety Bond equal to 5% (Five) of Total Contract Value exclusive of GST and valid up to 90 days after the end of contract period. Performa as per form 2 of section 6 in the RFP shall be followed.

3.3 Incidental Services

The Successful bidder may be required to provide any or all of the following services, including additional services, if any:

(a) performance or supervision of the on-site assembly and/or start-up of the supplied Goods;

(b) furnishing of tools required for assembly and/or maintenance of the supplied
Goods;

(c) furnishing of detailed operations and maintenance manual for each appropriate
unit of supplied Goods;

(d) for a period of time agreed by the parties, provided that this service shall not
relieve the Successful bidder of any warranty obligations under this Contract; and

(e) training of the Purchaser's personnel, at the Successful bidder's plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

3.4 Inspection and Tests:

(a) The Successful bidder shall carry out all such tests and inspections to ensure that the Goods and Related Services are complying with the functional parameters, codes and standards to the satisfaction of the Purchaser.

(b) The Purchaser or its designated representative will attend and witness the tests through physical inspections and the Successful bidder shall bear all expenses.

(c) The inspections and tests will be conducted at the factory site and at the final destination of the Goods. All facilities and assistance, including logistics, access to site, witnessing of tests at factory site of the OEM shall be arranged by the successful bidder at own cost.

(d) Whenever the Successful bidder is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser

(e) The Purchaser may require the Successful bidder to carry out any test and/or inspection to verify that the characteristics and performance of the Goods or Related Services comply with the technical specifications, codes and standards under the Contract

(f) The Successful bidder shall provide the Purchaser with a report of the results of any such test and/or inspection

(g) The Purchaser may reject any Goods / Related Services or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications.

(h) The Successful bidder shall either rectify or replace such rejected Goods/ Related Services or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice .The Successful bidder agrees that neither the execution of a test and/or inspection of the Goods/ Related Services or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report shall release the Successful bidder from any warranties or other obligations under the Contract.

III.4 a) Training:

1. The successful bidder shall arrange one-time training after successful commissioning of Backup Appliance to at least 5 persons of ESCOMs for at least 5 days at Bidder/OEM location from the OEM personnel on OEM certified courses including installation, configuration, operation, basic troubleshooting etc., as per BESCOM’s requirement and also issue

certificate of training completion from OEM.

2. Detailed training requirement will be shared with the successful vendor.

3.5a) Payment Terms & Penalties:

The payment schedule against various Milestones are as below:
(T- Date of DWA issue)

SL No.	Milestone	Schedule	Payment Terms.	Penalty
1	Supply, Installation, Configuration and commissioning of required capacity of backup storage appliance with all required software license & accessories along with backup software as per the scope of work and demonstration of required throughput for backup and restore for defined types of workloads along with submission of HLD and LLD	T + 8 weeks (T^1)	80% of total quoted cost	For Each Week delay, a 0.5% of this milestone cost subject to a maximum of 10% will be deducted
2	Three year Warranty	(T^1)+ 3 years (T^2)	10% of the contract cost Quarterly Payouts or upfront payment at the start of T^1 on submission of Bank Guarantee (BG), of value of 10% (ten percent) of contract cost with validity of BG for 3 years and 6 months from the date of DWA.	As per SLA. In case of upfront payment opted, the submitted BG will be returned after expiry of validity duly deducting the penalty as per SLA if any.
3	Two years AMC	T^2+ 2 years.	10% of the contract cost Quarterly Payouts or upfront payment at the start of T^2 on submission of Bank Guarantee (BG), of value of 10% (ten percent) of contract cost	As per SLA. In case of upfront payment opted, the submitted BG

			with validity of BG for 5 years and 6 months from the date of DWA.	will be returned after expiry of validity duly deducting the penalty as per SLA if any.

3.5b) Service Level Agreements & Penalties.

a. Successful bidder shall provide 24*7*365 days' support for all supplied hardware & software through OEM.
b. These shall be an online support portal from OEM for raising tickets related to issues or incidents or any clarifications. The Online portal shall have facility to down load software, patches, upgrades, documents etc.
c. There shall be no restriction on the number of incident related calls that can be logged in a day. On any day, BESCOM shall be free to log AMC related calls on the OEM's helpdesk for any number of systems covered under the scope of work. Each call shall be subject to the stipulations of response times and consequent SLA Penalties as applicable.
d. There shall be a SPOC from OEM side who will oversee all the tickets raised by BESCOM and ensure timely resolution.
e. Service Levels and Penalties for defaults are as given below: -

Sl. No.	Service	Service Level	Penalty in case of Breach of Service Level
1	Response to tickets by assignment of technical engineer	Within 1 hour from the time of ticket creation in customer support portal.	Rs. 1000/- per hour of delay subject to maximum of Rs 10000/- per quarter
2	Resolution of all types of tickets excluding faulty parts replacement	Within 3 hours from the time of ticket creation in customer support portal.	Rs. 1000/- per hour of delay subject to maximum of Rs 10000/- per quarter
3	Implementation of Patch update/upgrade by OEM	Within 24 hours from the time of intimation by BESCOM	Rs. 10000/- Per day of delay subject to maximum of Rs 50000/- per quarter
4	Hardware/faulty parts	Within 4 hours from the	Rs. 10000/- Per day

	replacement in case of failure.	time of the time of ticket creation in customer support portal.	of delay subject to maximum of Rs 50000/- per quarter

3.6 LIQUIDATED DAMAGES AND PENALTY:

As in Section 3.5 a) Payment Terms & Penalties and 3.5 b) Service Level Agreements & Penalties.
In addition, BESCOM may impose additional penalty for reasons as below:

3.6.1 If the Goods and Related Services supplied do not meet the minimum specifications as per the Contract, and the same is not replaced/modified by the Supplier to meet the requirements within 14 days of being informed by the Utility, the Utility shall be free to impose any penalty as deemed fit. In addition, the Utility shall reserve the right to terminate the contract and recover liquidated damages by forfeiting the performance guarantee submitted by the Purchaser.

3.7 Warranty :

3.7.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

3.7.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.

3.7.3 The warranty shall remain valid for three-year period from the date of commission at BESCOM’s site.

3.7.4 The Purchaser shall give Notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

3.7.5 Upon receipt of such Notice, the Supplier shall, within the warranty period expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

3.7.6 If having been notified, the Supplier fails to remedy the defect within 15 days of notify, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the Supplier under the contract.

3.8 Annual Maintenance Contract (AMC) and Annual Technical Support (ATS):

The AMC for the appliance and ATS for the backup software will start from date of commission of appliance in totality only.

4. Section IV: Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

4.1	The Purchaser's country is: The Union Of India
4.2	The Purchaser is: Bangalore Electricity Supply Company Ltd. on behalf of all five ESCOMs of Karnataka
4.3	The web-site is **https://kppp.karnataka.gov.in only.** The details regarding the RFP (Bid) process shall be available on the same. The eligible bidders should visit the website from time to time and get the status updates. All details uploaded on the website from time to time shall be deemed to have been provided to all the bidders.

4.4	The language shall be: English
4.5	For notices, the contact details shall be: THE GENERAL MANAGER (ICT & MIS) BANGALORE ELECTRICITY SUPPLY COMPANY LTD. BELAKU BHAVANA, CORPORATE OFFICE, K R CRICLE, BANGALORE -560001, KARNATAKA Email: gmit@bescom.co.in Contact: 9449844720
4.6	The governing law shall be: Laws applicable in exclusive jurisdiction of the High Court of Judicature at **Bangalore**, India and all courts subordinate to its exclusive Jurisdiction.

4.7	The formal mechanism for the resolution of disputes shall be: If the parties fail to resolve such a dispute or difference by mutual consultation within twenty-eight (28) days from the commencement of such dispute and difference, either party may require that the dispute be referred for resolution to the formal mechanisms, described below (The date of commencement of the dispute shall be taken from the date when this clause reference is quoted by either party in a formal communication clearly mentioning existence of dispute or as mutually agreed): a. The mechanism for resolution of disputes for bidders shall be in accordance with the Indian Arbitration and Conciliation Act of 1996. The Arbitral Tribunal shall consist of 3 (Three) Arbitrators. Each Party shall nominate an Arbitrator and the two nominated Arbitrators shall mutually agree and nominate a third Presiding Arbitrator. b. The place for arbitration shall be **Bangalore, Karnataka**

4.8	The price adjustment shall be: The bidders may please note that the prices are upward/downward Adjustable. Purchaser reserves the right to review and negotiate the charges payable at any time to incorporate downward revisions as applicable and necessary, including due to lowering of any applicable taxes, duties and any other statutory levies. Prices shall not be subject to any upward/downward revision on any account whatsoever throughout the period of contract. Provided that any revision in taxes, statutory levies, duties which is not occasioned due to any change in place, method and time of supply or non-performance / non-fulfilment of any condition of any exemption considered by the bidder at the time of proposal, shall be considered for price adjustments. The utility reserves the right to increase or decrease the contract value subject to the limit of 25%. It is clarified that this increase or decrease of 25% shall not entitle either party to claim revision of the unit price of the services.
4.9	**<u>General terms and conditions of Payment Schedule</u>** 1) All payments shall be made centrally at IT section of BESCOM in favour of the Successful Bidder 2) The release of payments will be Performance (output) based, where the payments are made for measured deliverables and outputs majorly defined. The SLAs will govern the penalty and deductions from payments for inferior deliverables. 3) Bidder needs to ensure completion of all works before submitting the invoice and approved only after the particular activity is completed. In case even part of the work is pending payment for that activity shall not be made. 4) The detailed terms of payment are as per the clause 3.5 5) Cost has to be mentioned as per prescribed formats only. 6) Power to withhold: Notwithstanding anything contained in the payment schedule mentioned below, if in the opinion of the Purchaser, any work done or service rendered by bidder is deficient in any manner in comparison to the prescribed standards, Purchaser shall be at liberty to withhold a reasonable portion of the payments due to the bidder, till such work/ service is made confirming to the prescribed standards. These powers to withhold payments shall be without prejudice to any other power/ right of the Purchaser under this

	contract.
4.10	The currencies for payments shall be in Indian Rupees (INR).
4.11	The Performance Security paid, shall be in the form of Bank Guarantee issued by a Scheduled Indian Bank as notified by Reserve Bank of India. The Bidder shall submit Performance Security of 5% on the Total Contract value to be valid for 90 days beyond the completion of contract period
4.12	**Debarment clause:** The Bidder may be debarred from participating in future tenders if: 1. contractor or supplier who has engaged directly or through an agent in a corrupt or fraudulent practices in participating or competing or executing the contract including misleading the Procurement Entity at any stage of procurement and executing activity. 2. When the firm continuously refuses to supply without showing adequate reasons and where the tender inviting authority is satisfied that no reasonable dispute attracting reference to arbitration or court of law exists, the firm's actions. 3. If the supplier or his partner or his representative has been convicted by a court of law for an offence involving moral turpitude in relation to the business dealings. 4. The Procurement Entity may, by order, appoint a Committee consisting of such officers not below the rank of Tender Inviting Authority to be the Debarment Committee to consider the proposals for debarring bidder or contractor or supplier and to take a decision thereof. 5. On the receipt of information, Debarment Committee shall provide a reasonable opportunity, including an oral hearing, to the concerned for making representations before taking a decision. 6. For consideration of debarment, Tender Inviting Authority or any other officer authorized by Tender Accepting Authority shall furnish the details of such bidders or contractors or suppliers who have engaged in corrupt practice and fraudulent practices to the Debarment Committee constituted under sub rule (2) above. 7. The Debarment Committee may make recommendations with reasoning in writing, within thirty days from date of receipt of information. Provided that, the said period may be extended by another fifteen days by Procurement Entity for the reasons to be recorded in writing. 8. On the recommendations of the Debarment Committee, the Procurement Entity shall by notification debar any of tenderer or contractor or supplier and publish the same on its website and Karnataka Public Procurement Portal and also maintain the list of such

	tenderer or contractor or the supplier or any of its successors. 9. The order of debarment shall be deemed to have been automatically revoked on the expiry of the period specified in the debarment order.
4.13	**Measures to be taken after Debarment:** The Procurement Entity may take appropriate measures in respect of debarred tenderer or contractor or supplier including one or more of the following, namely: - i. reject the bid and forfeit or encash EMD or Bid Security; ii. terminate the contract; forfeit or encash the performance guarantee iii. recover the compensation of loss incurred by Procurement Entity iv. forfeit or encash any other security or guarantee or bond provided by such tenderer or contractor or supplier in relation to the such procurement recover payments including advance payments, if any, made by the Procurement Entity along with the interest thereon at the prevailing rate of Nationalized Bank.

5. Section V: Scope Of Work

5.1 PROJECT SCOPE

BESCOM intends to procure of 200 TB usable capacity of Purpose Built Backup Appliance (PBBA) including 150 instances (147 Virtual on 31 physical servers and 3 physical instances on 3 physical servers running Oracle DB) or 110TB or 76 sockets of backup software as per the required specification in a single appliance.

A three level of backup copies are required to be maintained as below:

1. Primary Copy on the offered backup appliance.
2. Secondary copy on the tape library provided by BESCOM.
3. Tertiary copy on the offered Cloud service provider location.

The hardware commissioning including installation and configuration shall be done by the Original Equipment Manufacturer (OEM) only. Also, the patch installation including version upgrade post commissioning and during the contract period shall be done by OEM.

The successful bidder shall delegate a single point of contact (SPOC) throughout the contract for handling all issues during commissioning, warranty and AMC period. The SPOC delegated shall be an engineer with professional experience in handling backup appliance or similar works.

5.2 DETAILED SCOPE OF WORK and Specification:

5.2.1. Backup storage appliance:

The scope of work includes but not limited to below:

1. Supply, install, configure, commission and maintain 200 TB of usable purpose built backup storage appliance as per required specification mentioned in clause 5.2.1a at DC, Bengaluru.
2. The successful bidder need to design the setup architecture including physical infrastructure and logical design as per BESCOM's need.
3. Submit High Level Design document covering the study on the as-is environment and to-be environment covering the architecture, compression/deduplication ratio of various workloads, estimated backup/restoration speed in in terms of TB/Hr for various workloads, backup schedules and retention policy of various schedules, archival policy, orchestration policy, replication methodology proposed to be adopted between the DC and DRC, Backup frequency on secondary tapes.
4. Creation of RAID, volumes etc. for all the workloads in the environment.
5. Configure various backup schedules and retention period for full, incremental, differential, synthetic etc. type of backups as per BESCOM requirement.
6. Providing inter connectivity with the existing infrastructure including switches and servers. The offered backup appliance Storage shall be compatible to the available BESCOM SAN Switches, which is of model CISCO -DS-C9396T-48IK9 (Refer Section 5.5 for product datasheet) and core switch, which is of model (CISCO Nexus 9508) and Production storage Netapp AFF A700 and Tape Library Overland Tandberg Neo XL80 LT07FC
7. Demonstrate compliance of offered backup appliance to the technical specification defined in the clause 5.2.1a

8. Demonstrate the compression/deduplication ratio and backup & restoration speed as defined in the clause 5.2.1a.
9. The scope of work should also cover supply of required OFC (fiber), related necessary accessories and cabling between the backup appliances to existing switch.
10. The successful bidder shall co-ordinate with BESCOM's identified team to support for configuration issues, hardware replacement etc.
11. The successful bidder shall configure, install, de-install, re-install, re-configure (in case BESCOM need any configure change), cabling portion of work at no extra cost during the entire contract period.
12. Submit Low Level Design document (LLD) on the implementation, configurations done.
13. Break-fix support of supplied backup appliance and OS/ firmware upgrades for the appliance. The successful bidder shall provide patches/ upgrades of OS/ firmware during warranty and AMC period without any extra cost. The successful bidder shall provide timely proactive deployment of latest firmware versions / security patches in coordination with BESCOM's identified team.
14. The Hardware supplied shall be covered with three-year warranty (refer clause 3.7 Warranty) from date of commission and additional 2 years Annual Maintenance Contract (AMC). During the warranty and AMC, all the patches, firmware, newer software versions etc. releases shall be made available in the OEM online portal. The patches, firmware, newer software versions etc. have to be upgraded consistently by the OEM.

    Further, after completion of AMC period, the successful bidder should also ensure support from OEM for an additional period of 2 years for spare and support availability.
15. The resolution/replacement time shall be as per the SLA defined (Refer clause 3.5b). There should be 24x7x365 support for any technical issue for all the supplied products through this RFP directly from the OEM and the vendor.
16. BESCOM shall freeze installation setup, configuration and schedule in mutual consultation with the successful vendor and BESCOM's identified teams.
17. Confidentiality of the BESCOM's setup must be maintained by vendor.
18. Engineer from successful bidder must have adequate knowledge for

handling the installation, configuration and support & services for supplied hardware.

19. Successful bidder need to provide complete call logging details along with escalation matrix.
20. The successful bidder need to specify various infrastructure requirements which need to be provided for commissioning and smooth functioning of the equipment. This will include site requirements, power, cables, connectors, network cards / ports, UPS, environmental conditions, illumination etc.
21. If any services, functions or responsibilities not specifically described in this scope but are an inherent, necessary or customary part of the services and are required for proper performance or provision of the services in accordance with the scope, they shall be deemed to be included within the scope of the services, as if such services, functions or responsibilities were specifically required and described in this scope and shall be provided by the vendor at no additional cost to the BESCOM.
22. Vendor is expected to provide post installation support to the BESCOM. The successful vendor shall provide the assistance whenever required. Warranty and AMC support shall be provided by the successful vendor through OEM.
23. Following documents should be delivered by the successful bidder to the BESCOM including user manuals, installation manuals, operation manuals, design documents, process documents, technical manuals, technical specification, system configuration documents, debugging/diagnostics documents etc.

5.2.2. Backup storage appliance specification:

Technical Specifications:
The backup of BESCOM's workloads is currently taken on Tapes, which is consuming lot of time in backup and restore. BESCOM intends to enhance by moving to disk based backup appliance which is capable of providing faster backup/restore/recovery, protection from ransom ware, deduplication, orchestration etc.

BESCOM nearly has 110TB of data (base line). The year-on-year growth is around 10TB approx. The offered backup storage shall be a Purpose Build Backup appliance (PBBA) with 200 TB usable capacity on NL-SAS or above disk array.

PBBA should be containerized micro services-based architecture for agility, faster deployment and optimized steady state resource usage. Proposed (PBBA) should have master and media server in-built

All hardware modules and software licenses required for the expansion of the storage solution post initial supply, their unit prices should be quoted in the commercial bid .Unit prices mentioned in the commercial bid format shall be used to place additional expansion orders to the shortlisted agency any time during the tenure of the contract.

All the required software/hardware license satisfying the below mentioned technical features shall be bundled and supplied with no additional cost to BESCOM during the contract period. The license offered shall be perpetual in nature

Any additional hardware if required to meet the required specification shall be factored and supplied with backup appliance as a package.

Quantity required: 1 No. backup storage appliance box of 200 TB (usable) capacity and scale-up up to 400TB (Usable) to be deployed at BESCOM Data Centre, Bengaluru.

Offered Model: .....

Make & Year of Manufacture: .....

Location of Manufacture/Factory .....

Location of Assembly.....

BOM covering all components such as

- No. of nodes:
- No. of controllers:
- No. of disks/capacity:
- all software license etc.
- EOS/EOL and extended support published dates :.....

Sl. No.	Specification	Detailed Specification
1	Dedicated Appliance	a) The offered Appliance including storage and compute shall be fully integrated purpose-built dedicated appliance purely

		for backup, restoration, recovery, protection, deduplication, orchestration etc.
		b) Master/ Media server of the backup solution must be integrated with the PBBA for enhanced Ransomware resiliency in total OEM ownership.
		c) Proposed Integrated purpose-built backup appliance (PBBA) must have Zero Trust security architecture for agility, faster deployment and optimization steady state resource usage. PBBA should be fully integrated PBBA or reference architecture.
		d) The offered backup storage shall be a Purpose Build Backup appliance (PBBA) with 200 TB usable capacity on NL-SAS or above disk array.
2	High availability	i) The high availability solution offered shall be providing the following benefits: a) The solution should provide dual CPU, Dual Power supply, RAID 0+1 to make the solution more resilient. b) Immutability, Airgap, anomaly detection, malware scanning. c) Supports three modes of WORM lock i.e Normal, Enterprise and Compliance. ii) The appliance should be capable of being powered through redundant AC power supplies.

		iii) The appliance should provide scalability and high performance. iv) The storage system must be configured in RAID 6 or equivalent configuration v) Disk appliance to be offered with Flash and
3	Drive Support	a) The All NL-SAS array system or above must support a maximum of 4TB/6TB/8TB/12TB/ / 14TB /16TB /18TB /20TB per disk. Sufficient No of Cold/Hot Spare Disc to be provided.
4	Protocols	a) The storage should support FC/ iSCSI/ NFS/ SMB/ CIFS/ NDMP, SNMP, LDAP /AD protocols for various backup requirement as per the proposed solution. b) No Single Point of disk and power supply failure. c) NTP synchronization shall be available
5	RAID configuration	Should support RAID 6 or Equivalent along with hot/cold spare disks
6	Data Deduplication/compression	a) Proposed backup solution must provide both Fixed Length OR Variable Length Data Deduplication to allow users choose the dedupe option based on the backup workload. Solution should support Global Deduplication (Client side, Media Server and Target). b) Proposed PBBA must have disk backup in both Dedupe form and in advance disk (without dedupe) for fast backup/restoration.

		c) The backup appliance shall support in-line deduplication and in-line compression for entire capacity of PBBA. The disk space required to store backup data sets shall be reduced by maximum of 70% without impacting backup performance.
7	connectivity	a) The proposed appliance should have minimum 4x10Gig Ethernet and 4X16Gbps/32 Gbps FC ports.
		b) One or more Nos. of Dedicated Management ports shall be provided.
8	Storage Capacity	Storage system should be configured with 200 TB usable capacity and expandable vertically up to 400TB (Usable) within the box.
9	Rack Mountable	a) The storage should be supplied with rack and rack mount kit. All the necessary patch cords (Ethernet and Fiber) shall be provided and installed by the vendor. b) The required cables/FC connectivity to upstream and downstream devices from offered backup appliance shall be provided by vendor only.
10	Storage functionality	a) Proposed storage should provide block level data de-duplication and compression.
		b) Storage shall support Error detection and fault isolation.
		c) The storage must be certified to run leading virtualization software OEM like Windows Hyper-V, VMware, RHEL, Cloud VMs, Oracle VM server

		etc.
1 1	Redundancy at component levels	Storage System should have redundant hot swappable components like power supplies, fans etc.
1 2	Management software	a) Must include single management, easy to use GUI based and web enabled for both PBBA and Backup software.
		b) The offered GUI based software should be capable of being used without any license restrictions even in the case when the entire solution is expanded by adding additional modules and disks.
1 3	Licenses	All the required software not limited to firmware, OS, management software, capacity license, performance tools etc. shall be supplied with relevant licenses. The offered product to be supplied with all licenses of Software and Hardware.
1 4	Remote Support & Diagnostics	a) Nonintrusive alerting through email
		b) Performance and Capacity reports
		c) Ongoing health check analysis
1 5	OS & database support	a) Support for industry-leading Operating System platforms including Linux & its variants, Microsoft Windows & its variants, IBM-AIX, VMware, other Hypervisors etc.
		b) The PBBA shall support multi pathing for faster backups and restores.
		c) PBBA shall support all kinds of database such as oracle/MSSQL/MY SQL/ DB2/Informix/Sybase/ Exchange environment and archival.
1 6	Backup/restore speed	Proposed storage appliance should support a minimum backup/restore speed for various type of workloads as below: **a) <u>Backup:</u>**

		Backup plane of appliance should offer 27TB per hour OR higher throughput irrespective of RDBMS, Hypervisor or File systems. **b) <u>Restore:</u>** The appliance Back plane should offer similar speeds of 27TB per hour OR higher throughput irrespective of RDBMS, Hypervisor or File systems.
17	Encryption	Encryption of data both at rest and flight shall be available
18	Scalability	The proposed storage array should be scalable up to 400 TB Vertically (scale up).
19	Warranty & SLA	The Hardware and software quoted should have three-year default warranty from date of commission and 2 years Annual Maintenance support from the date of completion of warranty along with upgrade and updates. Support with 24x7. Bidder should ensure warranty & support for 2 more years, post the initial 5 years.
20	Multi Tenancy	The PBBA should support multi tenancy and provide a secure administrative segregation of the underlying storage resources, hosts, users and Application data.
21	AD authentication	The offered storage should be capable of supporting AD/LDAP authentication.
22	Zero Trust Architecture	a) Identity and access management: Manage user Identities, authenticate users and authorize accesses to resources for backup instances within the PBBA. b) Network segmentation: Segment Network into isolated segments, each with its own access controls and security policies within the PBBA so that backup instances

		and its data is protected from cyber/ Ransomware attack within the PBBA. c) Firewalls and Access controls: Restrict access to resources based on user identity, device and location. d) Encryption and key management: protect data in transit and at rest using encryption and key management solutions. e) Monitoring and Analytics tools: Detect and respond to potential security threats using monitoring and analytics.
23	Secondary backup to Tapes	The solution should support backups to different tape drives/libraries like LTO-8/9/10 for backup/restore/recovery.
24	Air gap	Proposed backup solution should support isolated recovery environment including an integrated, proactive AI/ML-based real-time anomaly detection during backup, malware scanning, and pull mode data to meet strict regulatory and retention requirements

5.2.3 Backup software:

The installation of backup software including configurations, installation of required agents on all the virtual/physical instances at on premise DC and DR on cloud and replication between DC and DRC shall be done by the OEM

The patch installation including version upgrade post commissioning and during the contract period shall be done by OEM only.

The scope of work includes but not limited to below:

1. Supply, install, configure, commission of backup software for 150 instances (147 Virtual on 31 physical servers and 3 physical instances on 3 physical servers running Oracle DB) or 110 TB capacity or 76 sockets-based licenses as per required specification mentioned in clause 5.2.2a at DC, Bengaluru.

2. Install required agents (media, client, archival, orchestration etc.) on the host/client which is virtual and physical both.
3. Add device – backup storage appliance on the backup software
4. Configure various backup schedules such as full, incremental, differential, synthetic etc. type of backups to every client and various retention period as per BESCOM requirement
5. Configure backup schedules on demand
6. Configure restore schedules as per BESCOM requirement
7. Provision various reports as per BESCOM requirement
8. Provision ad hoc reports from front end
9. Configure second level copy to existing Tape Library.
10. Convert backup copy written on tapes using existing backup software (Commvault/Data protector) to proposed new backup software format.
11. The Annual Technical Support (ATS) for the offered backup software shall be provided for a period of 5 years from the date of commission of backup appliance. All the patches, newer versions release during the ATS shall be made available in the OEM's Online portal. The patches, newer versions of backup software etc. have to be upgraded consistently by the OEM.

5.2.4 Backup software specification:

BESCOM intends to purchase backup software with 5 years subscription for the Data Centre/Disaster Recovery Centre (DRC) environment deployed on premise and DR environment on cloud. The BESCOM environment has both Virtual and physical environments. Currently, BESCOM environment is using backup software from two different OEMs. BESCOM nearly has 110TB of data (base line). The year-on-year growth is around 10TB approx. The backup software shall provide backup/restoration/recovery/archival/protection /orchestration feature. Proposed backup solution should support agentless integration to virtual environment like VMWare, Microsoft Hyper-V & RHEV and should have modern, next-gen workload protection and parallel Streaming Framework (PSF) support (Hadoop/HCI/NoSQL etc)

The 1st level backup is intended on the disk-based storage (backup appliance), second level backup on the Tapes. All the required configurations, policies, schedules, client wise pool creation, other pool creation on backup storage appliance (backup server) on premise and on DR cloud shall made available at both DC and DR. The subscription starts from the date of commission of backup appliance.		
Proposed OEM:…… Software Version/Name:…… Date of Launch of Version:…… Location of R&D/Manufacture facility: …… EOS/EOL and extended support published dates: …… Software components list:		
Sl NO	**Feature**	**Detailed requirement**
1	GUI and CLI based	a) The proposed backup solution shall have single GUI across heterogeneous platform to ensure easy administration and available on various OS platforms such as Windows, Linux and UNIX platforms and be capable of supporting backup/ restores/recovery from various supported platforms.
		b) Backup Solution must have Wizard-driven configuration and modifications for backup, restoration and devices.
		c) CLI based operations for backup, restore & other operations as available in GUI mode shall also be available.
		d) Software shall offer centralized management console to remotely monitor backups. The Backup Software shall provide web-based client interface, which can be accessed from any location and managed centrally, regardless of location
2	Backup types & window	a) Various backups shall be configured

		like weekly backups, daily incremental/differential, incremental ever, Synthetic full backup, Monthly full backup, user driven etc. The backups shall provide various retention period.
		b) The backup software shall have the capabilities to Support: I. Incremental Backups II. Differential Backups III. Full Backups IV. Synthetic Full Backups The backup software should natively support all four backup types, Full, Incremental, Differential, and Synthetic Full, across all workload types, including Virtual Machines, File System (NAS), and Databases (Oracle, MySQL, MSSQL, and PostgreSQL)
		The proposed backup solution should be capable of taking back up of environment as well as LAN based backup.
3	Backup software capacity & Licensing	a) 147 Virtual on 31 physical servers and 3 physical instances on 3 physical servers running Oracle DB or 110TB capacity or 76 socket based Subscription based license for 5 years are required. The license may be used on DC or DR when either is primary. The license on backup site shall not be charged.
		b) License required on cloud shall be factored within the scope c) Single license type should be supplied for backup of end points, virtual machines and Physical servers. OEM should also have a native solution for backup of Kubernetes/Container workloads.
		d) Backup Solution should have Capability

		to do trend analysis for capacity planning of backup environment. e) The offered product have a capability for manual/Automated Data Integrity check for backup data on device
4	Environments to support	Backup software shall support agent based or agent less integration to following environments: a) All operating systems (32 and 64 bits) and its variants like: Windows Server 2019 and later, Windows desktop OS 10 pro or later, Redhat Linux 6.x or later, other Linux variants like SUSE, Ubuntu, centos etc.,
		b) file server, image backup, NDMP backup etc.
		c) All Databases like Oracle 11g or later, MS SQL, MY SQL, Postgres, etc.
		d) Email environments like exchange, SharePoint and File share backup (SMB) etc.
		e) All Virtual environments like VMware, Hypervisor, OVM from Windows/Linux/Oracle etc.
		f) Backup of clustered environments like RAC shall be supported.
		g) ERP solutions from SAP, SAP HANA, Oracle etc.
5	Restore and recovery	a) The offered product shall have a capability to maintain a database for all backup jobs, policy jobs meta-data etc., and to have the capability of re-creating master system in case of disaster using this database. b) The restoration shall provide feature to either restore complete backup data or

		selectively-item wise
		c) In case the restore job is failed/killed in midway, the next restore job shall start from where the failed/killed job ended.
		d) Backup Solution should have ability to backup data from one server platform and restore it to another server platform to eliminate dependence on a particular machine and for disaster recovery purposes.
		e) The proposed backup solution should provide recovery from physical servers to Virtual and image level recovery.
		f) Backup software shall support and configured Scheduled automated restores to perform periodic restore drills.
		g) The software should provide a provision to restore the full backup from multiple incremental backup of file systems. This process should also take care of deleted files during the process of multiple incremental backup.
		h) The software shall support recovery at user defined point.
		i) The proposed backup software should support file level recovery from any backup of any VM or physical server. It should support a full system recovery in case of a system crash, either on a physical server or virtual machine.
		j) Backup software should support instant recovery of multiple VMs to support quick application recovery. It should also allow instant recovery of selected VM disks achieving highest levels of RTO for relevant business data.
		k) Recovery verification should automatically /automated through scripts, boot the server from backup

		and verify the recoverability of VM image, Guest OS and Application Consistency and then publish reports to be used in backup/recovery audits.
		l) Backup software should support **granular/**instant file share recovery in NAS storage to allow users to access files fast after disaster."
		m) The software should allow have the capability to restore the complete client data locally in case of Backup server not available.
6	Instant recovery	a) The proposed backup software should support instant recoveries for any backup to VMware or Hyper-V virtual machine or other Virtual platform like OVM. b) Backup shall support complete native backup and granular restore capabilities for Oracle, MySQL, MS SQL, and Postgres support all cluster deployment of these Database, like i. Oracle RAC and Grid-natively or with scripts ii. MySQL Multi-Instance-natively or with scripts iii. MS SQL Always On Availability Group iv. Streaming, Cluster and High availability Group. c) Proposed backup solution must support virtual backup without the need of any windows environment or backup server and should support instant recovery of VMWare virtual machines.
7	Server free backup	The backup software shall support server free backup, wherein backup is taken from the Production storage to backup appliance and backup appliance to Tapes without involving

		the host server
8	Encryption & Security	a) Backup Solution should support (inflight & at rest) encryption. The software should support Encryption & should have provision to delegate administrative task. b) All encryption algorithms like AES, Gost etc. shall be supported c) The backup solution should support security implementation at multiple level and should provide AES Encryption support 128, 192, or 256 - bit encryption keys.
		d) The backup data shall have ransom ware protection. The backup software should be able to integrate with existing anti-virus software or bidder provided threat intelligence with support to scan for known viruses, malwares and zero day attacks to be scanned before recovery of VMs and ensure that any infected VM is not restored or restore it with disabled network adapters to prevent any infection to spread through the network.
9	Compression/deduplication	The offered product should have a capability to support target based de-duplication along with source base de-duplication for improved backup window and lesser footprint.
10	Image level backup Capability	a) Shall support image level backup on host/hypervisor level for multiple vendors like Hyper-V, VMware etc. b) Shall support source-based deduplication while image level backup. c) Shall support granular recovery from

		image level backup. d) Shall provide instant recovery of image level backup.
11	Tape out Capabilities	a) The primary copy of the backed-up data shall be on disk based storage (backup appliance). The Additional copies of the backed data shall be automatically created from existing copies already in the protected storage environment, to Tapes or on cloud for consolidation, auditing, business continuity, or ease of out-of-place recovery.
		b) The offered product shall have capability to transfer all data that is backed up on disk to tape without client server intervention. c) Also to be able to retrieve data from tape to client server directly.
		a) Backup Solution should Integrate with third party and should have data deduplication capabilities. b) The proposed backup solution shall support tape mirroring of the same job running concurrently with primary backup. c) The proposed backup solution shall allow creating tape clone facility after the backup process.
		a) The backup software should also include full-fledged Media Library Management, including complete and automated offsite tape management, creation of pickup and drop lists, tracking of tapes, etc.
		b) Software shall support Scanning of Tape media to rebuild catalogs and indexes in case of disaster. It shall be

		supported through Software GUI and not through Command line utilities.
		c) The Polices defined centrally should be applied to Data & not restricted to tape media's. This is to optimally reuse the tape media. Backup Software should be able to rebuild the Backup Database/Catalog from tapes in the event of catalog loss/corruption.
		d) The Software should use the available media efficiently by writing the full and incremental data on to the same tape as long as the space is available on the tape media.
		e) The Backup Software shall provide LAN based data backup and should be able to collocate the data on to separate set of tapes as per the system or group of systems
		f) The Proposed backup solution shall be designed in such a fashion so that every client / server can share the robotic tape library
		g) Backup software should support multiplexing and multi streaming.
12	LAN free backup	Backup software shall support LAN FREE backup in SAN environments.
13	Performance	The required backup/restore job speed/throughput for various type of workloads is as below : **a) <u>Backup:</u>** Software should work in tandem with appliances providing back plane speed of 27 TB per hour for RDBMS including Oracle, SQL, and Hypervisor including VMware, Oracle VM, Windows and for Files and file systems. **b) <u>Restore:</u>**

		Software should work in tandem with appliances providing back plane speed of 27 TB per hour for RDBMS including Oracle, SQL, and Hypervisor including VMware, Oracle VM, Windows and for Files and file systems.
		c) Any CPU, RAM level upgrade on backup server and/ or any clients shall not affect the backup process and shall not have any licensing requirement whatsoever.
14	Database	a) The Backup software should use the RDBMS to store the catalogue and configuration information. The Backup software should have the capability to dynamically add the storage space for the RDBMS which stores the catalogue & configuration information.
15	Policies configuration	a) All policy creation for backup, retention, restore and recovery shall be done with necessary client wise pool creation at disks/Tapes. b) The Software should have a capability to define Polices centrally based on Business requirements. E.g. What Data to be backed up , where to store the Data , Retention period & Number of versions
16	Other Capabilities and features	a) Software shall support Zero Impact Backup of SAN Storage SNAPSHOTS. b) Software shall support online backup of all the database & shall support both Online and RMAN to perform online backup. c) The software should be flexible and configurable to adapt to organization’s backup policy. d) The proposed backup solution shall

		have in-built frequency and calendar based scheduling system.
		e) The software should have capability to generate scripts and should also have support for Development kits / API for customization of scripts.
		f) The software should have capability to retrieve selectively based on search criteria
		g) The software should have capability to backup the entire configuration of the server/backup appliance and restore it from scratch the entire system including configuration when in a scenario of hardware failure.
		h) The software must have the feature to backup on to the Disk pool and later migrate to the Tape without intervention. The Disk pool space should not be limited to a physical Disk drive capacity.
17	Reporting/alerts	a) Backup Solution should have Inbuilt feature for extensive alerting and reporting with pre-configured and customizable formats (in csv, text & pdf formats) b) Backup Software shall offer Extensive reporting capabilities to monitor the health of Backups. Shall support HTML, TEXT/ PDF and CSV outputs. It shall support scheduled automated generation of the report on a daily basis. And also shall be integrated with SMS. c) Software shall support event notification to notify backup administrator about events like Job Failed or Job aborted etc. The Backup Software shall provide Operational reports for Enterprise

		Backup solution. d) Should have capability to do trend analysis for capacity planning of backup environment, extensive alerting and reporting with pre-configured and customizable formats. e) Full back up data volume report: - Overview of the total data volumes that are backed up for each day. f) Full job completion report: Overview of the full backup jobs that are successful, partially successful and failed for each day
18	Recovery and replication on cloud	a) Software should be able to restore VMs to a cloud service provider environment directly from the backup copy. b) Backup solution should be provided with integrated DR orchestration features which can automate the recovery of Virtual Machines between DC and DR. c) Backup solution must have inbuilt NSX transport/**VADP** support for VM ware replication and should have inbuilt WAN optimization feature for remote backup and replication. d) The offered product to support bi-directional, many-to-one, one-to-many, and one-to-one replication e) Replication to provide the flexibility to transfer only dedupe data f) To provide compression of data while replication g) Subsequent Replication to be transferred only difference data from previous successful replication

19	Immutability and indelible	The backup software shall have features to maintain the backup copy immutable and indelible.
20	Data Deduplication	a) The backup software should provide deduplication for ensuring backup data from data source that is client data till the target- PBBA is deduped for optimal data movement from source to destination. b) The backup software should also provide capability of target level dedupe and global level dedupe along with the required source level dedupe to provide flexibility. to leverage the type of dedupe by the customer based on environment and requirements.
21	Oracle Backups	The backup software should support: 1) RMAN integration 2) FRA backup from Oracle The backup software should offer capabilities to backup Oracle FRA backup in addition to RMAN integration capability as it ensures zero performance overhead of Oracle DB by any third party software backups of Oracle data.

5.2.5 Tertiary Copy on Cloud:

The scope of work for tertiary copy on cloud includes but not limited to below:

1. The Bidder should procure cloud services from the MeitY empaneled Cloud Service Providers (CSP) Only.
2. All required services and Infrastructure from the CSP for setting up of Tertiary copy on cloud including a minimum of 15 TB usable space shall be provisioned by the bidder for a period of five (5) Years.
3. There shall be no limit to upload during the entire contract period of five years. However, a minimum onetime download of 15 TB should be provisioned for once a year during the entire contract period.

4. Creation of RAID, volumes etc. for all the workloads in the environment
5. The Solution should be procured in the name of BESCOM, for a period of 5 years.

5.2.6 Detailed Technical Specification of Backup on Cloud:

Sl No	Features	Detailed Requirement
1	Replication to cloud	The Purpose Build Backup Appliance should replicate selected or complete backup images from on premise purpose build storage appliance to any public cloud.
2	Replication to cloud	The data replication to public cloud from purpose build backup appliance should synchronize catalog meta data along with backup image. This ensures, if need exists the cloud instance can read all the backup images without the need for manual catalog import or reindexing for recovery purposes.
3	Replication to cloud	Replication to cloud should be policy driven and should provide: A. Which images to replicate B. When to replicate C. To which destination domain
4	Replication to cloud	The replication should ensure it provides support for optimized Deduplication. This ensure the deduplicated data from on premise backup appliance is directly transferred leveraging the purpose build storage box compression techniques to public cloud with minimum bandwidth usage for replication of backup days over WAN links.
5	Replication to cloud	The data replication from On-premise purpose build backup appliance to public cloud should be encrypted for data security and should also maintain data integrity and consistency for security and compliance

		purposes
6	Capacity on cloud	The bidder should include bill of quantity commercials for minimum of 15 TB usable space on public clouds for a period of 5 years
7	Restoration to on premise	The bidder should ensure that one time download of 15 TB should need to be provisioned for once a year.
8	Cloud service	Bidder should ensure that a suitable cloud instance with its suitable software to be provisioned to access these replicated backup images for enabling downloading of these images, administration activities involved with these backup images and it's movement from one cloud to smoother or to any on premise DC or DR location.
9	Scalability	The Solution should be scalable as per future requirements.
10	Security	The solution should support secures access control.
11	Encryption	The storage should support data encryption on transit and at rest.

6. Section VI: Forms:

Form: 1 : Bidder's Organization details *(To be uploaded on the Letterhead)*

Sl. No	Particulars	Details
1.	Name of the Bidder organization	
2.	Address of the Bidder	
3.	Status of the Company	

4.	Details of Incorporation of the Company	Date: Ref. #
5.	Details of Commencement of Business	Date: Ref. #
6.	Valid Sales tax registration no.	
7.	Valid Service tax registration no.	
8.	Permanent Account Number (PAN)	
9.	Name & Designation of the contact person to whom all references shall be made regarding this tender	
10.	Telephone No. (with STD Code)	
11.	E-Mail of the contact person:	
12.	Fax No. (with STD Code)	
13.	Website	

Yours faithfully,

Authorized Signature [In full and initials]

Name and Title of Signatory:

Company Name: Company Seal

Address:

Place:

Date

Form: 2 Performa for Contract Performance Guarantee

Performa for Bank Guarantee (For or Contract Performance Guarantee)

(To be stamped in accordance with Stamp Act, if any, of the Country of the issuing Bank)

Bank Guarantee no..... Date: / /

To,
General Manager (ICT & MIS)

Bangalore Electricity Supply Company Limited,
Belaku Bhavana, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Dear Sir,

In consideration of the.... *[Purchaser's Name]* ..... (Hereinafter referred to as the 'Purchaser' which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assignees) having awarded to M/s ..... *[Contractor's Name]* ..... with its Registered/Head Office at..... . (Hereinafter referred to as the 'Contractor'), which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assignees), a Contract by issue of the *Purchaser's* Letter of Acceptance no. ..... dated ..... and the same having been acknowledged by the Contractor, for ..... [Contract sum in figures and words] for ..... *[Scope of Work]* and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to five percent (5%) of the Contract Price of the aforesaid work under the Contract to the Purchaser.

We..... [Name & Address of the Bank]..... having its Head Office at..... (hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context of meaning thereof, include its successors, administrators, executors and assignees) do hereby guarantee and undertake to pay the Purchaser, on demand any and all monies payable by the Contractor to the extent of .... (*) ..... as aforesaid at any time up to..... (@) ..... [days/month/year] without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Purchaser on the Bank shall be conclusive and binding notwithstanding any difference between the Purchaser and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Purchaser and further agrees that the guarantees herein contained shall continue to be enforceable till the Purchaser discharges this guarantee or till .....[day/month/year] whichever is earlier.

The Purchaser shall have the fullest liberty, without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of the Contract by the Contractor. The Purchaser shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have

against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Purchaser and the Contractor or any other course or remedy or security available to the Purchaser. The Bank shall not be released of its obligations under these presents by any exercise by the Purchaser of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Purchaser or any other indulgence shown by the Purchaser or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The Bank also agrees that the Purchaser at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Purchaser may have in relation to the Contractor's liabilities.

Our liability under this Bank Guarantee shall not exceed ……..

This Bank Guarantee shall be valid up to and including ……..

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if the Purchaser serve upon Bank a written claim or demand within ninety (90) calendar days from the above mentioned expiry date of validity or, from that of the extended date.

Dated this……. day of ……. 2025 at……..

WITNESS

(Name)

……
……

(Signature)

(Name)

……
……

(Signature)

.....
.....

(Official Address) (Designation with Bank Stamp)

Attorney as per with Power of Attorney no.....

Note: The Stamp paper of Rs.500/- value shall be purchased in the name of guarantee issuing Bank.

Form: 3 Declaration on not being blacklisted /defaulter

(To be submitted on the Letterhead of the Company)

To,

General Manager (ICT & MIS)
Bangalore Electricity Supply Company Limited,

Belaku Bhavana, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Sub: “Supply, install, configure, commission and maintenance of backup storage appliance including all required software license and accessories along with backup software” as per terms and conditions stipulated in RFP vide enquiry No. BESCOM/2025-26/OW/WORK_INDENT642/CALL-2

Dear Sir,

We confirm that our company is not blacklisted/defaulter for any fraudulent actions by BESCOM or by any state/central Government institution or any Public Sector Organization.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Signature

Name & Designation

For and on behalf of

(Name of Applicant or Bidder)

Company Seal:

Place:

Date:

Form: 4 Declaration of Acceptance of Terms and Conditions in RFP

(To be submitted on the Letterhead)

To,

General Manager (ICT & MIS)
Bangalore Electricity Supply Company Limited,
Belaku Bhavana, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Sub.: "Supply, install, configure, commission and maintenance of backup storage appliance including all required software license and accessories along with backup software., as per terms and conditions stipulated in RFP vide enquiry No. BESCOM/2025-26/OW/WORK_INDENT642/CALL-2.

Dear Sir,

I have carefully gone through the Terms & Conditions contained in the RFP document [Tender enquiry No. BESCOM/2025-26/OW/WORK_INDENT642/CALL-2]

for Supply, install, configure, commission and maintenance of backup storage appliance including all required software license and accessories along with backup software.

I declare that all the provisions of this RFP/Tender Document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

Authorized Signature [In full and initials]

Name and Title of Signatory:

Company Name: Company Seal

Address:

Place:

Date:

Form: 5 Letter of Proposal Submission

(To be submitted on the Letterhead)

To,

General Manager (ICT & MIS)

Bangalore Electricity Supply Company Limited,
Belaku Bhavana, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Dear Sir,

We, the undersigned, offer our proposal for Supply, install, configure, commission and maintenance of backup storage appliance including all required software license and accessories along with backup software., in accordance to the terms and conditions stipulated in RFP invited vide enquiry No. BESCOM/2025-26/OW/WORK_INDENT642/CALL-2

We are hereby submitting our Proposal, which includes

a) Financial Proposal on KPP portal
b) Technical solution document detailing the implementation plan, maintenance plan, training plan etc. (should also include Bill of Material {BOM}
c) EMD of the prescribed amount (paid online as defined in the KPP portal)
d) Bid processing fee of the prescribed amount (paid online as defined in the KPP portal)

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate on the price bid, specified in form 7. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We understand you are not bound to accept any Proposal you receive.

Yours faithfully,

Authorized Signature [In full and initials]

Name and Title of Signatory:

Company Name: Company Seal

Address:

Place: Date:

Form: 6 Price Bid

The Price should be entered/Keyed in the KPP portal in financial bid section. Please refer to section 2.17 of this document.

Bidders should not upload the Price bid form as part of technical Bid. If the price bid is uploaded the bidders will be disqualified.

The detailed price breakup for the Bill of Materials of the Price bid of the qualified

bidders shall be submitted in Hard Copy on the date of opening the Price bid to the

Office of General Manager(ICT&MIS) as per the below format:

Sl. No.	Particulars	UOM	Quantity	Unit rate	Total cost
1	Supply of 200 TB usable backup storage appliance with all required software license & accessories.	No.	1		
2	Supply of Backup software of 150 instances/110TB capacity/76 sockets based subscription based license with 5 years warranty	Instance/ capacity/ socket	150/ 110TB/ 76		
3	Installation, Configuration and commissioning of backup storage appliance and backup software including training	Lot	1		
4	Annual Maintenance charges of backup appliance	Years	5		
5	Annual Technical support of backup software	Years	5		
6	Cloud Service cost for 5 years	Years			
7	Sub Total				
8	GST 18%				
9	Grand Total				
10	Amount in Words:				

Note : The cost of each major component used in backup storage appliance such as disk, controller, Nodes, SFPs, per TB Cloud Backup charge per year etc. shall also be provided in separate sheet.

Form: 7 Technical Specification Compliance

(To be provided in OEM letter head signed by both OEM and SI)

To,

General Manager (ICT & MIS)
Bangalore Electricity Supply Company Limited,
Belaku Bhavana, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Dear Sir,

Please find below the technical specification Compliance sheet of Purpose Built Backup appliance and backup software offered:

1) Purpose Built backup appliance (PBBA) :
   a) Quantity Offered : **.....**
   b) usable and Raw capacity : .....
   c) scalable Capacity : .....
   d) Offered Model & Part No.: .....
   e) Make & Year of Manufacture: .....
   f) Location of Manufacture .....
   g) Location of Assembly.....
   h) EOS/EOL and extended support published dates :.....
   i) BOM covering all components such as No. of controllers, No. of disks/capacity, all software license etc.
      i. No. of controllers:
      ii. N. of Nodes
      iii. Disk Capacity:
      iv. Disk Capacity supported within the offered no. of controllers:
      v. Software products details along with license type and capacity offered:
   j) Any additional hardware:

Technical Specifications:
The backup of BESCOM's workloads is currently taken on Tapes, which is consuming lot of time in backup and restore. BESCOM intends to enhance by moving to disk based backup appliance which is capable of providing faster backup/restore/recovery, protection from ransom ware, deduplication, orchestration etc. BESCOM nearly has 110TB of data (base line). The year-on-year growth is around 10TB approx. The offered backup storage shall be a Purpose Build Backup appliance (PBBA) with 200 TB usable capacity on NL-SAS or above disk array. PBBA should be containerized micro services-based architecture for agility, faster

deployment and optimized steady state resource usage. Proposed (PBBA) should have master and media server in-built

All hardware modules and software licenses required for the expansion of the storage solution post initial supply, their unit prices should be quoted in the commercial bid .Unit prices mentioned in the commercial bid format shall be used to place additional expansion orders to the shortlisted agency any time during the tenure of the contract.

All the required software/hardware license satisfying the below mentioned technical features shall be bundled and supplied with no additional cost to BESCOM during the contract period. The license offered shall be perpetual in nature

Any additional hardware if required to meet the required specification shall be factored and supplied with backup appliance as a package.

Quantity required: 1 No. backup storage appliance box of 200 TB (usable) capacity and scale-up up to 400TB (Usable) to be deployed at BESCOM Data Centre, Bengaluru.

Offered Model: .....

Make & Year of Manufacture: .....

Location of Manufacture/Factory .....

Location of Assembly.....

BOM covering all components such as

- No. of nodes:
- No. of controllers:
- No. of disks/capacity:
- all software license etc.

EOS/EOL and extended support published dates :.....

Sl. No.	Specification	Detailed Specification	Technical specification Compliance (Yes/No)	Remarks (if any)
1	Dedicated Appliance	a) The offered Appliance including storage and compute shall be fully integrated purpose-built dedicated appliance purely for backup, restoration, recovery, protection, deduplication, orchestration etc.		
		b) Master/ Media server of the backup solution must be		

		integrated with the PBBA for enhanced Ransomware resiliency in total OEM ownership.		
		c) Proposed Integrated purpose-built backup appliance (PBBA) must have Zero Trust security architecture for agility, faster deployment and optimization steady state resource usage. PBBA should be fully integrated PBBA or reference architecture.		
		d) The offered backup storage shall be a Purpose Build Backup appliance (PBBA) with 200 TB usable capacity on NL-SAS or above disk array.		
2	High availability	I. The high availability solution offered shall be providing the following benefits: a) The solution should provide dual CPU, Dual Power supply, RAID 0+1 to make the solution more resilient. b) Immutability, Airgap, anomaly detection, malware scanning. c) Supports three modes of WORM lock i.e Normal, Enterprise and Compliance. II. The appliance should be capable of being powered through redundant AC power supplies. III. The appliance should provide scalability and high performance.		

		IV. The storage system must be configured in RAID 6 or equivalent configuration V. Disk appliance to be offered with Flash and super capacitor or similar technology on appliance for protection against data loss in power failure scenario		
3	Drive Support	The All NL-SAS array system of above must support a maximum of 4TB/ 6TB/ 8TB/ 12TB/ / 14TB /16TB /18TB /20TB per disk. Sufficient No of Cold/Hot Spare Disc to be provided.		
4	Protocols	a) The storage should support FC/ iSCSI/ NFS/ SMB/ CIFS/ NDMP, SNMP, LDAP /AD protocols for various backup requirement as per the proposed solution.		
		b) No Single Point of disk and power supply failure.		
		c) NTP synchronization shall be available		
5	RAID configuration	Should support RAID 6 or Equivalent along with hot spare disks/cold spare disks		
6	Data Deduplication/compression	a) Proposed backup solution must provide both Fixed Length OR Variable Length Data Deduplication to allow users choose the dedupe option based on the backup workload. Solution		

		should support Global Deduplication (Client side, Media Server and Target). b) Proposed PBBA must have disk backup in both Dedupe form and in advance disk (without dedupe) for fast backup/restoration. c) The backup appliance shall support in-line deduplication and in-line compression for entire capacity of PBBA. The disk space required to store backup data sets		
7	connectivity	a) The proposed appliance should have minimum 4x10Gig Ethernet and 4X16Gbps/32 Gbps FC ports.		
		b) One or more Nos. of Dedicated Management ports shall be provided.		
8	Storage Capacity	Storage system should be configured with 200 TB usable capacity and expandable vertically up to 400TB (Usable) within the box.		
9	Rack Mountable	a) The storage should be supplied with rack and rack mount kit. All		

		the necessary patch cords (Ethernet and Fiber) shall be provided and installed by the vendor. b) The required cables/FC connectivity to upstream and downstream devices from offered backup appliance shall be provided by vendor only.		
10	Storage functionality	a) Proposed storage should provide block level data de-duplication and compression.		
		b) Storage shall support Error detection and fault isolation.		
		c) The storage must be certified to run leading virtualization software OEM like Windows Hyper-V, VMware, RHEL, Cloud VMs, Oracle VM server etc.		
11	Redundancy at component levels	Storage System should have redundant hot swappable components like power supplies, fans etc.		
12	Management software	a) Must include single management, easy to use GUI based and web enabled for both PBBA and Backup software.		
		b) The offered GUI based software should be capable of being used without any license restrictions even in the case when the entire solution is expanded by adding additional modules and disks.		
13	Licenses	a) All the required software not limited to firmware, OS, management software, capacity license,		

		performance tools etc. shall be supplied with relevant licenses. b) The offered product to be supplied with all licenses of Software and Hardware.		
14	Remote Support & Diagnostics	a) Nonintrusive alerting through email		
		b) Performance and Capacity reports		
		c) Ongoing health check analysis		
15	OS & database support	a) Support for industry-leading Operating System platforms including Linux & its variants, Microsoft Windows & its variants, IBM-AIX, VMware, other Hypervisors etc.		
		b) The PBBA shall support multi pathing for faster backups and restores		
		c) PBBA shall support all kinds of database such as oracle/ MSSQL/ MYSQL/ DB2/Informix/Sybase/Exchange environment and archival.		
16	Backup/restore speed	Proposed storage appliance should support a minimum backup/restore speed for various type of workloads as below: **a) <u>Backup:</u>** Backup plane of appliance should offer 27TB per hour OR higher throughput irrespective of RDBMS, Hypervisor or File systems. **b) <u>Restore:</u>**		

		The appliance Back plane should offer similar speeds of 27TB per hour OR higher throughput irrespective of RDBMS, Hypervisor or File systems.		
17	Encryption	Encryption of data both at rest and flight shall be available		
18	Scalability	The proposed storage array should be scalable up to 400 TB Vertically (scale up).		
19	Warranty & SLA	The Hardware and software quoted should have three-year default warranty from date of commission and 2 years Annual Maintenance support from the date of completion of warranty along with upgrade and updates. Support with 24x7. Bidder should ensure warranty & support for 2 more years, post the initial 5 years.		
20	Multi Tenancy	The PBBA should support multi tenancy and provide a secure administrative segregation of the underlying storage resources, hosts, users and Application data.		
21	AD authentication	The offered storage should be capable of supporting AD/LDAP authentication.		
22	Zero Trust Architecture	a) Identity and access management: Manage user Identities, authenticate users and authorize accesses to resources for backup instances within the PBBA. b) Network segmentation: Segment Network into isolated segments, each with its own access controls		

		and security policies within the PBBA so that backup instances and its data is protected from cyber/ Ransomware attack within the PBBA. c) Firewalls and Access controls: Restrict access to resources based on user identity, device and location. d) Encryption and key management: protect data in transit and at rest using encryption and key management solutions. e) Monitoring and Analytics tools: Detect and respond to potential security threats using monitoring and analytics.		
23	Secondary backup to Tapes	The solution should support backups to different tape drives/libraries like LTO-8/9/10 for backup/restore/recovery.		
24	Air gap	Proposed backup solution should support isolated recovery environment including an integrated, proactive AI/ML-based real-time anomaly detection during backup, malware scanning, and pull mode data to meet strict regulatory and retention requirements		

Authorized Signature [In full and initials]:
Name and Title of Signatory:
Name of Company/Firm:

2) Backup Software

Supply, install, configure, commission and maintenance of backup storage appliance including all required software license and accessories along with backup software

Proposed OEM:.....
Software Version/Name:.....
Date of Launch of Version:.....
Location of R&D facility:.....

EOS/EOL and extended support published dates :.....

Sl. No.	Specification	Detailed Specification	Technical specification Compliance (Yes/No)	Remarks (if any)
1	GUI and CLI based	a) The proposed backup solution shall have single GUI across heterogeneous platform to ensure easy administration and available on various OS platforms such as Windows, Linux and UNIX platforms and be capable of supporting backup/ restores/recovery from various supported platforms.		
		b) Backup Solution must have Wizard-driven configuration and modifications for backup, restoration and devices.		
		c) CLI based operations for backup, restore & other operations as available in GUI mode shall also be available.		
		d) Software shall offer centralized management console to remotely monitor backups. e) The Backup Software shall provide web-based client interface, which can be accessed from any location and managed centrally, regardless of location		
2	Backup types & window	a) Various backups shall be configured like weekly backups, daily incremental/differential, incremental ever, Synthetic		

		full backup, Monthly full backup, user driven etc. The backups shall provide various retention period.		
		b) The backup software shall have the capabilities to Support: I. Incremental Backups II. Differential Backups III. Full Backups IV. Synthetic Full Backups The backup software should natively support all four backup types, Full, Incremental, Differential, and Synthetic Full, across all workload types, including Virtual Machines, File System (NAS), and Databases (Oracle, MySQL, MSSQL, and PostgreSQL		
		The proposed backup solution should be capable of taking back up of environment as well as LAN based backup.		
3	Backup software capacity & Licensing	147 Virtual on 31 physical servers and 3 physical instances on 3 physical servers running Oracle DB or 110TB capacity or 76 socket based Subscription based license for 5 years are required. The license may be used on DC or DR when either is primary. The license on backup site shall not be charged.		
		a) License required on cloud shall be factored within the scope b) Single license type should be supplied for backup of end points, virtual machines and Physical servers. OEM should		

		also have a native solution for backup of Kubernetes/ Container workloads.		
		a) Backup Solution should have Capability to do trend analysis for capacity planning of backup environment. b) The offered product have a capability for manual/Automated Data Integrity check for backup data on device		
4	Environments to support	Backup software shall support agent based or agent less integration to following environments: a) All operating systems (32 and 64 bits) and its variants like: Windows Server 2019 and later, Windows desktop OS 10 pro or later, Redhat Linux 6.x or later, other Linux variants like SUSE, Ubuntu, centos etc.,		
		b) file server, image backup, NDMP backup etc.		
		c) All Databases like Oracle 11g or later, MS SQL, MY SQL, Postgres, etc.		
		d) Email environments like exchange, SharePoint and File share backup (SMB) etc.		
		e) All Virtual environments like VMware, Hypervisor, OVM from Windows/Linux/Oracle etc.		
		f) Backup of clustered environments like RAC shall be supported.		
		g) ERP solutions from SAP, SAP HANA, Oracle etc.		

5	Restore and recovery	a) The offered product shall have a capability to maintain a database for all backup jobs, policy jobs meta-data etc., and to have the capability of re-creating master system in case of disaster using this database. b) The restoration shall provide feature to either restore complete backup data or selectively-item wise		
		c) In case the restore job is failed/killed in midway, the next restore job shall start from where the failed/killed job ended.		
		d) Backup Solution should have ability to backup data from one server platform and restore it to another server platform to eliminate dependence on a particular machine and for disaster recovery purposes.		
		e) The proposed backup solution should provide recovery from physical servers to Virtual and image level recovery.		
		f) Backup software shall support and configured Scheduled automated restores to perform periodic restore drills.		
		g) The software should provide a provision to restore the full backup from multiple incremental backup of file systems. This process should also take care of deleted files during the process of multiple incremental backup.		

		h) The software shall support recovery at user defined point.		
		i) The proposed backup software should support file level recovery from any backup of any VM or physical server. It should support a full system recovery in case of a system crash, either on a physical server or virtual machine.		
		j) Backup software should support instant recovery of multiple VMs to support quick application recovery. It should also allow instant recovery of selected VM disks achieving highest levels of RTO for relevant business data.		
		k) Recovery verification should automatically /automated through scripts, boot the server from backup and verify the recoverability of VM image, Guest OS and Application Consistency and then publish reports to be used in backup/recovery audits.		
		l) Backup software should support granular/ instant file share recovery in NAS storage to allow users to access files fast after disaster.		
		m) The software should allow have the capability to restore the complete client data locally in case of Backup server not available.		

6	Instant recovery	a) The proposed backup software should support instant recoveries for any backup to VMware or Hyper-V virtual machine or other Virtual platform like OVM. b) Backup shall support complete native backup and granular restore capabilities for Oracle, MySQL, MS SQL, and Postgres support all cluster deployment of these Database, like i Oracle RAC and Grid-natively or with scripts ii MySQL Multi-Instance-natively or with scripts iii MS SQL Always On Availability Group iv Streaming, Cluster and High availability Group. c) Proposed backup solution must support virtual backup without the need of any windows environment or backup server and should support instant recovery of VMWare virtual machines.		
7	Server free backup	The backup software shall support server free backup, wherein backup is taken from the Production storage to backup appliance and backup appliance to Tapes without involving the host server		
8	Encryption & Security	a) Backup Solution should support (inflight & at rest) encryption. The software should support Encryption & should have provision to delegate		

		administrative task. b) All encryption algorithms like AES, Gost etc. shall be supported c) The backup solution should support security implementation at multiple level and should provide AES Encryption support 128, 192, or 256 -bit encryption keys.		
		The backup data shall have ransom ware protection. The backup software should be able to integrate with existing anti-virus software or bidder provided threat intelligence with support to scan for known viruses, malwares and zero day attacks to be scanned before recovery of VMs and ensure that any infected VM is not restored or restore it with disabled network adapters to prevent any infection to spread through the network.		
9	Compression/ deduplication	The offered product should have a capability to support target based de-duplication along with source base de-duplication for improved backup window and lesser footprint.		
10	Image level backup Capability	a) Shall support image level backup on host/hypervisor level for multiple vendors like Hyper-V, VMware etc. b) Shall support source-based deduplication while image level backup. c) Shall support granular recovery from image level backup. d) Shall provide instant recovery of image level		

		backup.		
1 1	Tape out Capabilities	a) The primary copy of the backed-up data shall be on disk based storage (backup appliance). The Additional copies of the backed data shall be automatically created from existing copies already in the protected storage environment, to Tapes or on cloud for consolidation, auditing, business continuity, or ease of out-of-place recovery.		
		b) The offered product shall have capability to transfer all data that is backed up on disk to tape without client server intervention. c) Also to be able to retrieve data from tape to client server directly.		
		d) Backup Solution should Integrate with third party and should have data deduplication capabilities. The proposed backup solution shall support tape mirroring of the same job running concurrently with primary backup. e) The proposed backup solution shall allow creating tape clone facility after the backup process.		
		f) The backup software should also include full-fledged Media Library Management, including complete and automated offsite tape management, creation of pickup and drop lists,		

		tracking of tapes, etc.		
		g) Software shall support Scanning of Tape media to rebuild catalogs and indexes in case of disaster. It shall be supported through Software GUI and not through Command line utilities.		
		h) The Polices defined centrally should be applied to Data & not restricted to tape media's. This is to optimally reuse the tape media. Backup Software should be able to rebuild the Backup Database/Catalog from tapes in the event of catalog loss/corruption.		
		i) The Software should use the available media efficiently by writing the full and incremental data on to the same tape as long as the space is available on the tape media.		
		j) The Backup Software shall provide LAN based data backup and should be able to collocate the data on to separate set of tapes as per the system or group of systems		
		k) The Proposed backup solution shall be designed in such a fashion so that every client / server can share the robotic tape library		
		l) Backup software should support multiplexing and multi streaming.		
12	LAN free backup	Backup software shall support LAN FREE backup in SAN environments.		

13	Performance	The required backup/restore job speed/throughput for various type of workloads is as below : **a) <u>Backup:</u>** Software should work in tandem with appliances providing back plane speed of 27 TB per hour for RDBMS including Oracle, SQL, and Hypervisor including VMware, Oracle VM, Windows and for Files and file systems. **b) <u>Restore:</u>** Software should work in tandem with appliances providing back plane speed of 27 TB per hour for RDBMS including Oracle, SQL, and Hypervisor including VMware, Oracle VM, Windows and for Files and file systems.		
		c) Any CPU, RAM level upgrade on backup server and/ or any clients shall not affect the backup process and shall not have any licensing requirement whatsoever.		
14	Database	The Backup software should use the RDBMS to store the catalogue and configuration information. The Backup software should have the capability to dynamically add the storage space for the RDBMS which stores the catalogue & configuration information.		
15	Policies configuration	a) All policy creation for backup, retention, restore and recovery shall be done with necessary client wise pool creation at disks/Tapes		

		b) The Software should have a capability to define Polices centrally based on Business requirements. E.g. What Data to be backed up , where to store the Data , Retention period & Number of versions		
16	Other Capabilities and features	a) Software shall support Zero Impact Backup of SAN Storage SNAPSHOTS. b) Software shall support online backup of all the database & shall support both Online and RMAN to perform online backup. c) The software should be flexible and configurable to adapt to organization's backup policy. d) The proposed backup solution shall have in-built frequency and calendar based scheduling system.		
		a) The software should have capability to generate scripts and should also have support for Development kits / API for customization of scripts.		
		b) The software should have capability to retrieve selectively based on search criteria		
		c) The software should have capability to backup the entire configuration of the server/backup appliance and restore it from scratch the entire system including configuration when in a scenario of hardware failure.		

		d) The software must have the feature to backup on to the Disk pool and later migrate to the Tape without intervention. The Disk pool space should not be limited to a physical Disk drive capacity.		
17	Reporting/alerts	a) Backup Solution should have Inbuilt feature for extensive alerting and reporting with pre-configured and customizable formats (in csv, text & pdf formats). b) Backup Software shall offer Extensive reporting capabilities to monitor the health of Backups. Shall support HTML, TEXT/PDF and CSV outputs. It shall support scheduled automated generation of the report on a daily basis. And also shall be integrated with SMS. c) Software shall support event notification to notify backup administrator about events like Job Failed or Job aborted etc. d) The Backup Software shall provide Operational reports for Enterprise Backup solution. e) Should have capability to do trend analysis for capacity planning of backup environment, extensive alerting and reporting with pre-configured and customizable formats. f) Full back up data volume report: - Overview of the total data volumes that are		

		backed up for each day. g) Full job completion report: Overview of the full backup jobs that are successful, partially successful and failed for each day		
18	Recovery and replication on cloud	a) Software should be able to restore VMs to a cloud service provider environment directly from the backup copy. b) Backup solution should be provided with integrated DR orchestration features which can automate the recovery of Virtual Machines between DC and DR. c) Backup solution must have inbuilt NSX transport /VADP support for VM ware replication and should have inbuilt WAN optimization feature for remote backup and replication. d) The offered product to support bi-directional, many-to-one, one-to-many, and one-to-one replication e) Replication to provide the flexibility to transfer only dedupe data f) To provide compression of data while replication g) Subsequent Replication to be transferred only difference data from previous successful replication.		
19	Immutability and indelible	The backup software shall have features to maintain the backup copy immutable and indelible.		
20	Data Deduplication	a) The backup software should provide deduplication for		

		ensuring backup data from data source that is client data till the target- PBBA is deduped for optimal data movement from source to destination. b) The backup software should also provide capability of target level dedupe and global level dedupe along with the required source level dedupe to provide flexibility. to leverage the type of dedupe by the customer based on environment and requirements.		
21	Oracle Backups	The backup software should support: 1) RMAN integration 2) FRA backup from Oracle The backup software should offer capabilities to backup Oracle FRA backup in addition to RMAN integration capability as it ensures zero performance overhead of Oracle DB by any third party software backups of Oracle data.		

Authorized Signature [In full and initials]:
Name and Title of Signatory:
Name of Company/Firm

3) Cloud Backup

Proposed Meity Empannelled CSP:.....
Services obtained:.....
BOM :
Hardware instance:
Software instance :
Storage capacity :

Technical specifications:

1. The Bidder should procure cloud services from the MeitY empaneled Cloud Service Providers (CSP) Only.
2. All required services and Infrastructure from the CSP for setting up of Tertiary copy on cloud including a minimum of 15 TB usable space shall be provisioned by the bidder for a period of five (5) Years.
3. There shall be no limit to upload during the entire contract period of five years. However, a minimum onetime download of 15 TB should be provisioned for once a year during the entire contract period.
4. Creation of RAID, volumes etc. for all the workloads in the environment
5. The Solution should be procured in the name of BESCOM, for a period of 5 years.

Sl No	Features	Detailed Requirement	Technical specification Compliance (Yes/No)	Remarks (if any)
1	Replication to cloud	The Purpose Build Backup Appliance should replicate selected or complete backup images from on premise purpose build storage appliance to any public cloud.		
	Replication to cloud	The data replication to public cloud from purpose build backup appliance should synchronize catalog meta data along with backup image. This ensures, if need exists the cloud instance can read all the backup images without the need for manual catalog import or re		

		indexing for recovery purposes.		
3	Replication to cloud	Replication to cloud should be policy driven and should provide: A. Which images to replicate B. When to replicate C. To which destination domain		
4	Replication to cloud	The replication should ensure it provides support for optimized Deduplication. This ensure the de duplicated data from on premise backup appliance is directly transferred leveraging the purpose build storage box compression techniques to public cloud with minimum bandwidth usage for replication of backup days over WAN links.		
5	Replication to cloud	The data replication from On-premise purpose build backup appliance to public cloud should be encrypted for data security and should also maintain data integrity and consistency for security and compliance purposes		
6	Capacity on cloud	The bidder should include bill of quantity commercials for minimum of 15 TB usable space on public clouds		

		for a period of 5 years		
7	Restoration to on premise	The bidder should ensure that one time download of 15 TB should need to be provisioned for once a year.		
8	Cloud service	Bidder should ensure that a suitable cloud instance with its suitable software to be provisioned to access these replicated backup images for enabling downloading of these images, administration activities involved with these backup images and it's movement from one cloud to smoother or to any on premise DC or DR location.		
9	Scalability	The Solution should be scalable as per future requirements.		
10	Security	The solution should support secures access control.		
11	Encryption	The storage should support data encryption on transit and at rest.		

Form: 8 Certificate for clause regarding restrictions on procurement from Bidder of a country which shares a land border with India

To,

General Manager (ICT & MIS)
Bangalore Electricity Supply Company Limited,
Belaku Bhavan, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Dear Sir,

This is to certify that I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India; I certify that this Bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this Bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.)

Authorized Signature [In full and initials]:

Name and Title of Signatory:
Name of Company/Firm

Form 9: MAF from OEM (To be provided under the letter head of OEM)

To,

General Manager (ICT & MIS)
Bangalore Electricity Supply Company Limited,
Belaku Bhavan, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Sub:

Ref: Tender enquiry No. BESCOM/2025-26/OW/WORK_INDENT642

Dear Sir,

We……. (OEM name) ……

We hereby declare that M/s ……..(Bidder's Name), having office at ……..is an authorized partner of _____(OEM name) . The bidder is well qualified in delivering our products and has good experience in delivering multiple projects.

We hereby authorize M/s……..(Bidder's Name), to participate in the above-referenced Tender

We further conform that we have understand the terms and conditions of the tender and abide by the same. Also, we hereby conform to provide OEM support on the site for Backup Software Configuration, Installation, Commissioning and Maintenance of the supplied Backup appliance with all required accessories and bundled software license at Data Centre. The ATS/AMC of the Backup Appliance and Backup software from the OEM will be provided for 5 years from the date of commissioning and also we undertake to provide any patch installation, firmware upgrade, health diagnosis, troubleshooting in case of issues, provide RCA document etc. during the contract period.

Also, we undertake to carry out activities defined in the scope of work as per the SLA.

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Company/Firm

Form 10: OEM undertaking (To be provided under the letter head of OEM)

To,

General Manager (ICT & MIS)
Bangalore Electricity Supply Company Limited,
Belaku Bhavan, Corporate Office, K.R Circle
Bangalore-560001, Karnataka, India

Dear Sir,

We ..... (OEM name) hereby declare that we have understood the RFP terms and conditions, scope of work, technical specifications, SLAs etc. The implementation of our offered product would be done by our own professional team within the stipulated timeline

We further confirm and undertake as follows:

1. We will provide 3 (three) years back-to-back OEM warranty, including hardware replacement and 24x7x365 days technical support. We will also provide additional 2 (two) years' support on AMC basis. Our support will be available on 24x7*365 basis as per the SLA defined in the RFP. We confirm that Bidder and BESCOM will both be able to log a
support call via phone/email/web with us.

2. The total contract period is 5 (five) years from the date of commissioning. The AMC and ATS will commence from the date of commission of appliance. Our support will be ensured for additional 2 (two) years for spares and services, thus for a total of 7 (seven) years support for the supplied Products.

3. We will provide patches/ updates of OS/ firmware, as applicable to the supplied Products during warranty and AMC period without any extra cost to BESCOM, and we also carry out timely proactive deployment of latest firmware versions / security patches for the supplied Products in coordination with BESCOM's identified team.

4. We confirm that training to BESCOM personnel's will be imparted from our side and necessary training completion certificate would be issued.

Authorized Signature [In full and initials]:

Name and Title of Signatory:
Name of Company/Firm

Form 11: Qualifying requirement as per clause 1.4 (Eligibility Criteria) Section I point 11:

Assessed available tender capacity

11.1 Total value of works executed and payment received in last 5 years:

SL No.	Financial Year	Value of works executed in Rs.
1	2020-21	
2	2021-22	
3	2022-23	
4	2023-24	
5	2024-25	

11.2 Details of work performed as prime contractor (in same name) on works of similar nature during the last five years specified in 11.1 above:

Work Name	Name of Employer	Description of Work	Contract Number	Value of contract Rs. Lakhs	Date of issue of work order	Specified period of completion	Actual date of completion	Remarks explaining reasons for delay in completion of work
1	2	3	4	5	6	7	8	9

11.3 Details of quantities of work executed during the last five years specified in 1.2 above

Year	Name of Work	Name of Employer	Contract Order Details	Quantity of work performed		Remarks (Indicate contract reference)
				Hardware Capacity	Software Capacity	
2020-21						
2021-22						
2022-23						
2023-24						
2024-25						

(Attach Certificate from Chartered Accountant)

11.4 Information on works for which Tenders have been submitted and works which are yet to be completed as on the date of this Tender.

(A) <u>Existing commitments and on-going works:</u>

Description of Work	Place & State	Contract Number & date	Name and Address of the Employer	Value of contract Rs. Lakhs	Stipulated period of completion	Value of works remaining to be completed (Rs. Lakhs)	Anticipated date of completion
1	2	3	4	5	6	7	8

(countersigned by the employer in-charge, not below the rank of Executive Engineer or equivalent)

(B) Works for which Tenders already submitted:

Description of Work	Place & State	Name and Address of the Employer	Estimated Value of works	Stipulated period of completion	Date when decision is expected	Remarks if any
1	2	4	5	6	7	8

Form 12: Banker's Certificate

ON BANKERS LETTER HEAD

.....

FORMAT OF BANKER'S CERTIFICATE/ LINE OF CREDIT LETTER

[TO BE ISSUED IN THE LETTER HEAD OF BANK BRANCH]

Reference Number (SL No.) Place:

Date:

To:

[Name and Address of the beneficiary]

This is to certify that M/s. .....(name of the customer) having their registered/ administrative office at ..... is a customer of our Bank and is engaged in .....(nature of activity). Their financial transaction with our Bank has been satisfactory. Therefore, we have extended credit facilities as below to meet their financial requirement towards the execution of the .....(brief details of work) as per the Loan Policy of the Bank:

<table>
<tr><td>SL No.</td><td>Type of facility</td><td>Amount in Rs. (As on date of issue of certificate)</td></tr>
<tr><td>(1)</td><td>Cash at Bank</td><td>Rs.....</td></tr>
<tr><td>(2)</td><td>Term Deposits</td><td>Rs.....</td></tr>
<tr><td>(3)</td><td>Fund based Credit facility (includes Overdraft)</td><td><table><tr><td>Sanctioned Limit</td><td>Utilized amount</td><td>Available Balance amount</td></tr><tr><td>Rs.....</td><td>Rs.....</td><td>Rs.....</td></tr></table></td></tr>
</table>

Note:- Date of the Certificate

Liquid Assets as on last date of previous month of tender inviting date or at a later date before submission of the bid.

Yours Faithfully,

BRANCH MANAGER

Form 13: Work Completion Certificate (customer's letter head)

To whomsoever it may concern

This is to certify that the firm _____ (firm name) has completed the work involving _____ (Quantity) _____ (Capacity) of Backup Storage appliance/ Tape library/Data storage of make _____(OEM name) satisfactorily under the contract order issued by this office vide letter No. _____

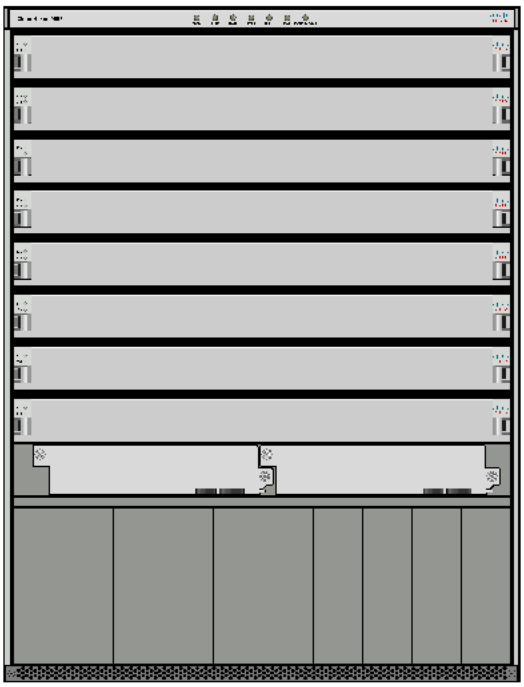
Signature of Officer

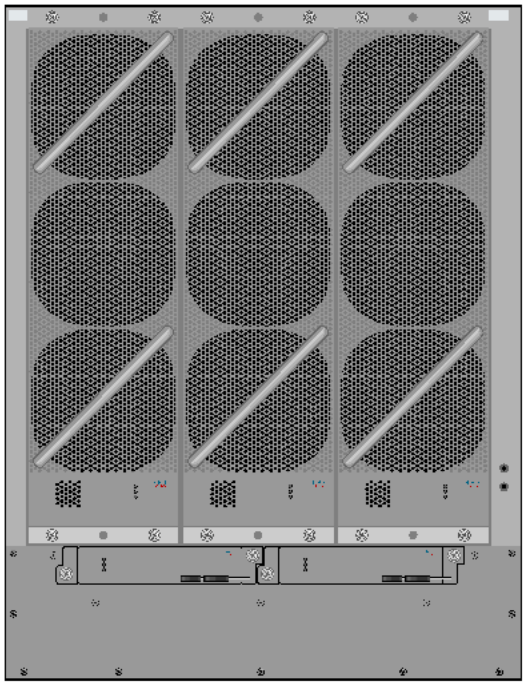
(Officer not below the rank of
Executive Engineer or Equivalent officer)

Data Sheets:

1. Core Switch:

Cisco Nexus® 9000 Series Switches operate in one of two modes of OS these switches provide a turnkey, fully automated, policy-based architecture to design and manage data center fabrics. In Cisco NX-OS mode, these switches provide the capability to use foundational layer 2/3 technologies, as well as modern technologies such as VXLAN, with a Border Gateway Protocol–Ethernet VPN (BGP-EVPN) control plane, segment routing, Multiprotocol Label Switching (MPLS), and automation via NX-APIs. Supports extensive switch and flow telemetry capabilities that provide extensive real-time visibility into switch and fabric states





2. SAN SWITCH:

The next-generation Cisco® MDS 9396T 32-Gbps 96-Port 2-rack unit Fibre Channel Switch provides high-speed Fibre Channel connectivity in the SAN. This switch offers state-of-art analytics and telemetry capability built into its next-generation Application-Specific Integrated Circuit (ASIC) platform. The Non-Volatile Memory express (NVMe)-ready switch allows seamless transition to Fibre Channel Non-Volatile Memory Express (FC-NVMe) workloads whenever available without any hardware upgrade in the SAN. This high-density, highly reliable and scalable,

enterprise class semi-modular switch is ideal for medium to large departmental SANs

3. **Netapp Storage: AFF A900**

https://www.netapp.com/aff-a-series/aff-a900/

4. **Tape Library: Overland Tandberg: NEO XL 80 LTO7 FC**
   BESCOM may have alternate Tape Library in future.

Supply, install, configure, commission and maintenance of backup storage appliance including all required software license and accessories along with backup software

Annexure : ABBREVIATIONS

BESCOM	Bangalore Electricity Supply Company
DWA	Detailed Work Award
EMD	Earnest Money Deposit
ESCOM	Electricity Supply Company
GM	General Manager
ICT & MIS	Information and Communications Technology & Management Information System
LOI	Letter of Intent
PO	Purchase Order
DC	Data Centre
DRC	Disaster Recovery Centre
ESCOMs	Electricity supply companies